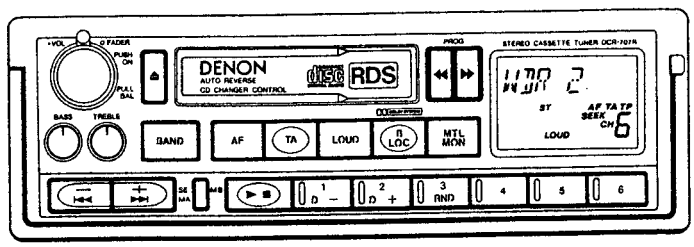
DENON

Hi-Fi Component

SERVICE MANUAL
MODEL DCR-707R

STEREO CASSETTE TUNER



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NIPPON COLUMBIA CO., LTD.

Please read carefully all safety and operating instructions before installation and use.
It will help you to obtain the best performances from your new Cassette Tuner.

FEATURES

- Auto reverse cassette mechanism.
- Dolby B NR**.
- Metal tape switch.
- Super hard permalloy head.
- Music sensor (1).
- Key off head release
- Quartz/PLL digital frequency synthesizer tuner.
- 24 Station-Presets (12 FM, 6 MW, 6 LW)
- Denon Optimum Reception System III (FM circuitry-Auto high blend and FM pulse noise cancellor).
- Up/Down manual & seek tuning.
- RDS (PI, PS, AF, TA, *PTY) * Only code 31
- Stereo/mono (FM), local switches.
- Beep tone
- Exclusive D-Mount system.
  Din "E" extractable.
  Din "E" non extractable. (with optional kit)
  Iso fixed mount.
- Night illumination with dash light dimmer lead
- CD changer control.
  Random Play: all of tracks on a disc.
  Automatic/Manual search.

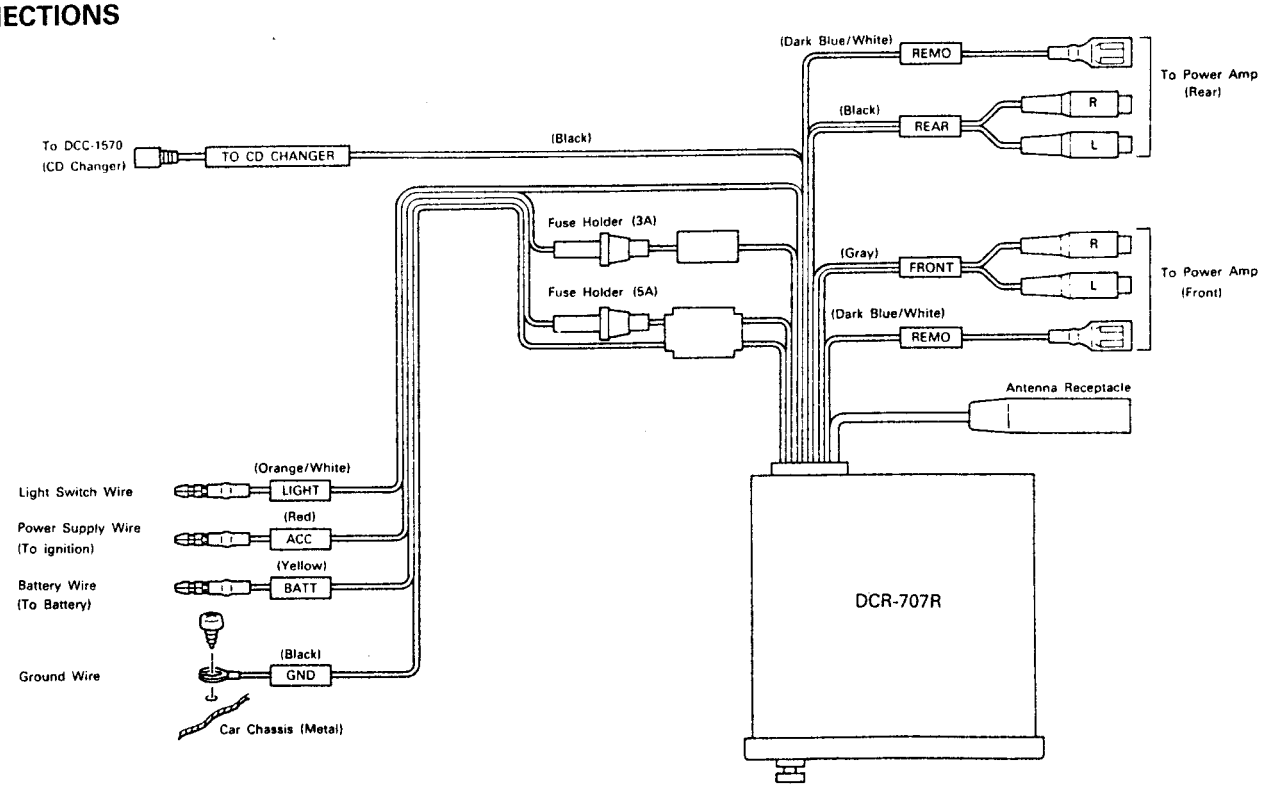
** Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⒹⒹ are trademarks of Dolby Laboratories Licensing Corporation.

FOR YOUR RECORDS

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number is indicated on the top of the unit.
You will need the serial number, if the need for service should arise.

Model DCR-707R
Serial Number _____

CONNECTIONS

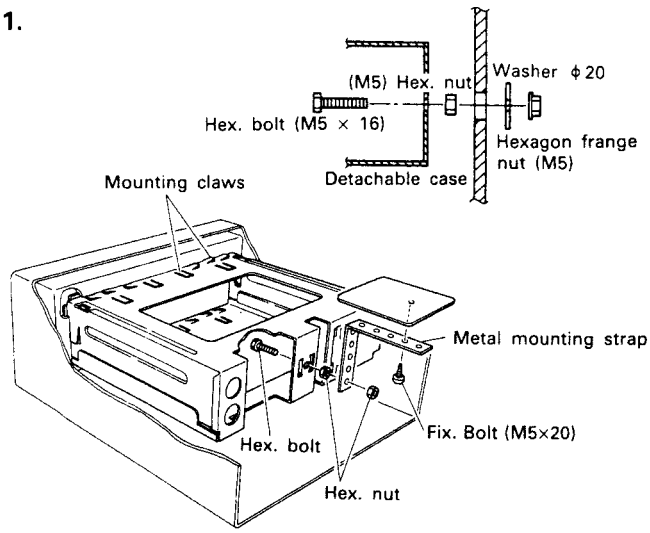


DENON Cassette Tuner DCR-707R will operate properly with 14.4V (11V-16V) car batteries. You cannot use it with 24V or other types of car batteries.
Maximum rated current capacity from the Remote output is total 500 mA.

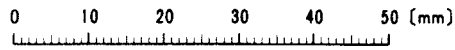
INSTALLATION

- Use screws supplied as accessories when installing the unit.

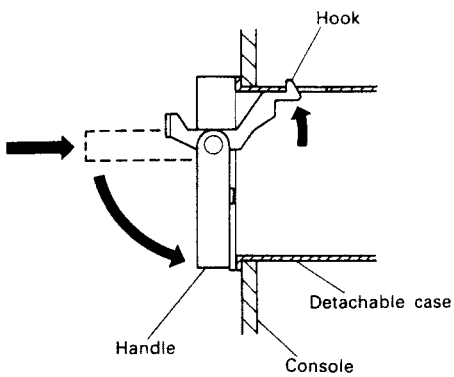
1.



Insert the detachable case into the console and clamp with the claws. If the detachable case cannot be inserted, file opening slightly to accommodate.

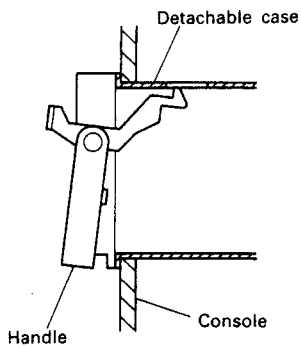


2.

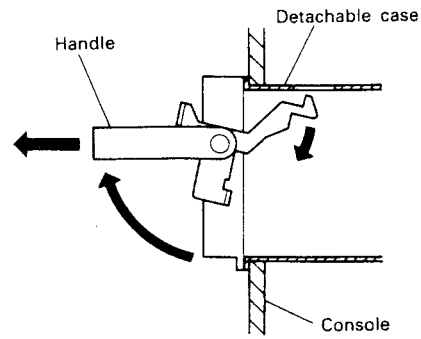


Lower the handle completely.
If the handle is lowered incompletely as shown in the diagram below, the hook will not grasp properly. Be sure to lower it fully.

3.



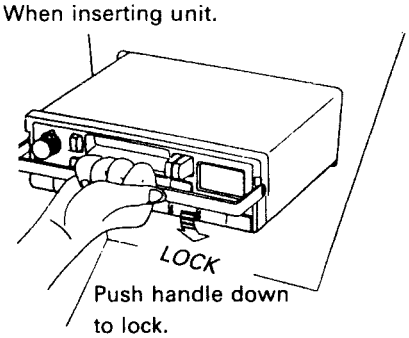
4.



To detach the set, lift the handle and pull it in the direction of the arrow shown on the diagram.

CAUTION

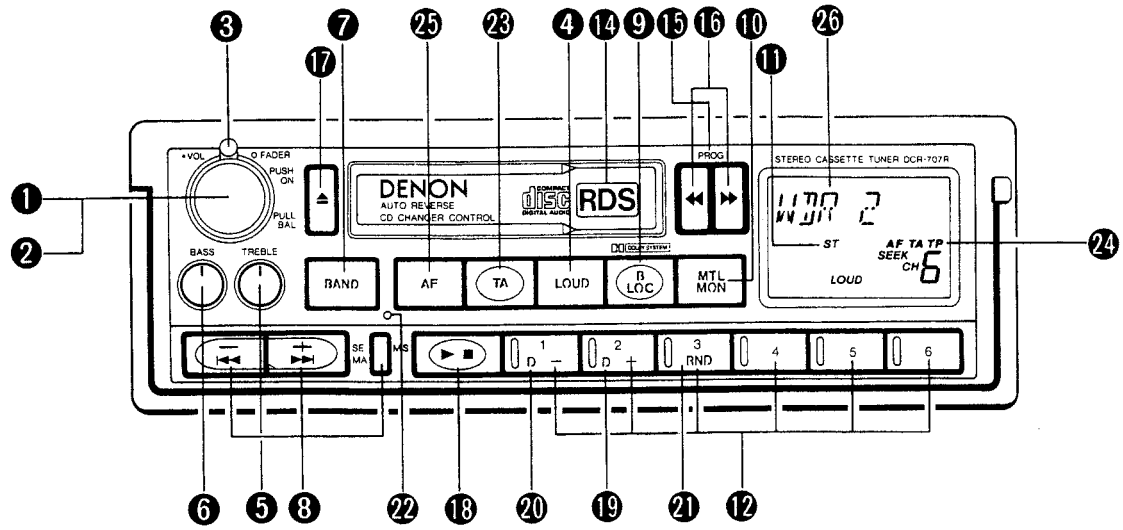
Handle must be in this position,
When inserting unit.



ACCESSORIES

No.	Part name	Q'ty
①	M5 Nut	2
②	M5 Washer	2
③	M5 SP Washer	2
④	Hex. Bolt 5×16	2
⑤	Fix. Bolt 5×20	1
⑥	Nut W/Flange (M5)	1
⑦	Special Bolt	1
⑧	Metal Mounting Strap	1

CONTROLS & INDICATORS



• MAIN CONTROL

* A beep is sounded when the switches are pushed.

❶ TUNER ON/OFF SWITCH/VOLUME
Turn the knob for volume control.
Push the knob for tuner on/off.

❷ BALANCE CONTROL
Pull and turn the volume knob to adjust the volume of the left and right speakers.
After adjusting, press in the knob to lock the selection.

❸ FADER CONTROL
Turn the knob to adjust the balance of front and rear speakers. Clockwise for front and counter-clockwise for rear.

❹ LOUD LOUDNESS SWITCH
Push the switch for low volume listening. Low frequency range is enhanced. "LOUD" will be indicated on the LCD display.

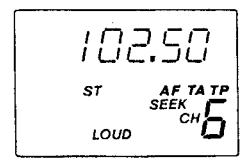
❺ TREBLE CONTROL
Turn the knob to adjust the treble.
After adjusting, push in the knob to lock the selection.

❻ BASS CONTROL
Turn the knob to adjust the bass.
After adjusting, push in the knob to lock the selection.

• Operating the Radio

PREPARE

- ❶ TUNER ON/OFF SWITCH Push this switch to turn on the radio. The frequency will be displayed on the LCD. During tape playback, the mode does not automatically switch to the tuner when this switch is pushed.



- ❼ BAND BAND SELECTOR Each time this switch is pushed, the band will be changed in the order of FM1 → FM2 → MW → LW. The band indication (FM1, FM2, MW, or LW) will be displayed on the LCD.

SEEK TUNING

- ❽ Push the SEEK/MANUAL switch to set the SEEK mode. ("SEEK" will be displayed on the LCD.)
- ❽ Push the UP TUNING switch to automatically tune to the next strong station of higher frequency.
- ❽ Push the DOWN TUNING switch to automatically tune to the next strong station of lower frequency.

MANUAL TUNING

- ❽ Push the SEEK/MANUAL switch to set the manual mode. (The "SEEK" indication will disappear from the LCD.)

- ⑧ Each push of the UP TUNING switch raises the frequency in a 50 kHz step for FM, a 9 kHz step for MW and a 1 kHz step for LW.
- ⑧ Each push of the DOWN TUNING switch lowers the frequency in a 50 kHz step for FM, a 9 kHz step for MW and a 1 kHz step for LW. Holding down either of these switches changes the frequency continuously.

Note: In strong signal areas the seek function may stop at the "side" of the station and the signal may be distorted or noisy, in such a case you may elect to use the "local" switch – (See ⑨).
At the LW setting, MANUAL TUNING tunes in 1 kHz steps and SEEK TUNING tunes in 9 kHz steps.

⑨ LOCAL SWITCH

Your DENON Car Tuner is equipped with the most advanced mobile tuning circuitry available. You may also find using the LOCAL switch under very high signal strength situations desirable when tuning by SEEK mode. "LOCAL" will be indicated on the LCD display.

⑩ FM AUTO/MONO SWITCH

Push the switch to receive FM stations in monaural. "MONO" will be indicated on the LCD display. This will be useful in difficult reception areas to improve listenability.

⑪ FM STEREO INDICATOR

"ST" will be indicated on the LCD display when any FM Stereo program is received.

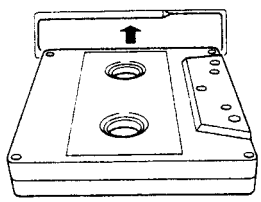
⑫ MEMORY SWITCH

Use to store the received station in the preset memories.
1) Select MW, LW or FM.
2) Tune to desired station by manual or seek mode.
3) Holding down this memory switch for 2 seconds or longer will permit storage in memory of the frequency being received.
4) A beep tone will sound when the memorization is completed. The channel number of the depressed switch ("CH1–6") will be displayed on the LCD.

12FM, 6MW, and 6LW stations can be memorized.
Such preset stations can be called by pressing the preset switch and releasing it within 2 seconds. The preset station is indicated as "CH1–6" on the LCD display.

• Cassette Tape Operation

⑭ CASSETTE TAPE SLOT



Insert the cassette into this slot with the opening of the cassette to the right side. The cassette will load and start playing automatically.
"TAPE" will be indicated on the LCD display.

⑮ PROGRAM SWITCH

Push the FF and REW switches to reverse the running direction of tape. When the tape comes to the end, the running direction of tape reverses automatically.
When playing back the upper track of the cassette, the forward indicator "▶" will turn on and when the lower track is played the reverse indicator "◀" will turn on.

⑩ TAPE SELECTOR

Push the switch for Metal, Chrome, or "High Bias" tape "METAL" will be indicated on the LCD display and release it for "normal" tape.

⑨ DOLBY NR SYSTEM SWITCH**

When listening to tape that has been recorded using the DOLBY SYSTEM.
Push the DOLBY B switch, when listening to play back of a tape recorded with the DOLBY SYSTEM B type.
" DD B" will be indicated on the LCD display.
Push off DOLBY NR switch when playing back generally recorded tape.

⑯ FF/REW SWITCH

- Fast-forward: Press the button to fast-forward the tape, regardless of the direction in which the tape is running.
- Rewind: Press the button to rewind the tape, regardless of the direction in which the tape is running.
- When stopping fast forward or rewind action, push the switch not already selected, then select play again.
  If the tape comes to the end by fast forward, it will play from the first program of reverse side automatically.
  If the tape comes to the end by rewind, it will play from the first program of same side automatically.

Note: The program indicator will change when the rewind button is pressed. This is not a malfunction. The rewind button cannot be pressed directly during fast-forward. Set the deck to the play mode before pressing the rewind button.

⑧ ⑯ MUSIC SENSOR

This circuit operates by searching for blank spaces between songs. It can be used to find the beginning of the next song or to return to the start of the song in play.
To operate:
1. Push the switch so that "MS" appears on the LCD.
2. Pushing switch will find the beginning of the next song and resume play.
   Pushing switch will return to the beginning of song in play, and resume play.

Note: For MS to operate normally there must be blank space of at least 5 seconds. You may find that occasionally a very soft section in the music may "fool" the MS into "thinking" there exists a pause in the music. This should be considered to be normal.

⑰ EJECT SWITCH

Push the switch to eject the cassette.

• CD Changer Operation

(Please connect the optional DCC-1570)

⑱ CD PLAY/STOP SWITCH

Pushing this switch will start the CD play.
The "▶" sign and the currently playing disc number and track number will be displayed on the LCD.
Pushing this switch once again will stop the CD play.
During tape playback, the mode does not automatically switch to the CD player when this switch is pushed.

• Disc Change

- ⑲ Pushing the switch will advance the unit to the next disc and start the play from the first track.
- ⑳ Pushing the switch will return the unit to the previous disc and start the play from the first track. The number of the changed disc is displayed on the LCD.

⑧ AUTOMATIC SEARCH

1. Pushing the Auto/Manual Search switch will display "SEARCH" on the LCD and set the unit to the automatic search mode.
2. Pushing the switch will find the beginning of the next song and resume play.
   Pushing the switch will return to the beginning of the song in play, and resume play.
3. Continuing to push the (or) switch will find the beginning of the next song (or the previous song) and resume play.

* The track numbers of the songs being searched will be displayed on the LCD.
* When the unit reaches the first or last song on the disc, the search will be cancelled.

⑧ MANUAL SEARCH

1. Pushing the Auto/Manual Search switch will set the manual search mode and the "SEARCH" display on the LCD will go out.
2. Continuing to push the up switch will fast forward the disc. Continuing to push the down switch will fast reverse the disc.
   At this time the sound can be heard at a lower volume than during regular playback.

㉑ RANDOM SWITCH (for One Disc)

Pushing this switch will play back each of the tracks on the disc currently being played in random order.
"RND" will be displayed on the LCD.
Note: When the switch ㉑ is pushed one more time, the unit will return to the regular playback mode and the LCD display will go out.

㉒ RESET SWITCH

When the set malfunctions, push this switch with the point of a ball point pen or other sharp implement. This resets the internal microcomputer. During the reset operation, "WAIT" is displayed on the LCD.
Note: Pushing the RESET switch cancels the tuner's preset memory, etc. Set each of these memories again after the RESET switch has been pushed.

Error Displays

With the DCC-1570 connected, if any of the following error displays are shown on the LCD when the unit is operated, carry out the measure indicated in the table.

Error display	Cause of error	Measure
NO MAG.	The disc magazine is not inserted in the changer.	Insert a disc magazine that has been loaded with discs into the changer.
NO DISC	Discs are not loaded in the disc magazine.	Remove the disc magazine and load the discs.
ERROR	The DCC-1570 does not operate for some reason.	Push the DCR-707R reset switch
HOT	The temperature protection circuit of the DCC-1570 has operated.	Wait until the temperature drops.

• RDS Operation

The RDS (Radio Data System) is a broadcast system which multiplexes digital data such as data used for tuning FM radio signals. The European Broadcasting Union (EBU) has consolidated this standard and RDS is now being broadcast in Europe. Use of the RDS data permits such things as the tuning of only traffic information stations, or if the signal on the frequency presently being received becomes weak, it is possible for the set to automatically change to another broadcast station having a strong signal and the same broadcast contents. As a result, the selection of the desired broadcast station is simplified and driving is more pleasant.
There are many features to this RDS service and now in Germany the PI, PS, AF, TP, and TA services are available. From among these RDS services, the DCR-707R uses the following:

a. PS: Program Service Name
Displays the name of the broadcast station on the display.

b. PI: Program Identification
Recognizes the index of the country or reception region and the program of the broadcast station.

c. TP: Traffic Program Identification
Judges whether or not the station is a traffic information station.

d. TA: Traffic Announcement Identification
Judges whether or not traffic information is being broadcast.

e. AF: Alternative Frequencies
This is a list of the frequencies of broadcast stations now transmitting programs with the same contents.

f. PTY: Program Type
This is a discrimination code for the program contents. Alarm code (31) only.

㉓ TA SWITCH

This switch is used only for the selection and reception of stations that broadcast traffic information (i.e., RDS broadcast stations providing the TA and TP services). "TA" will appear in the LCD display when this switch is ON to indicate the operation of the TA mode. This switch can only be used at the time of FM reception. See Page 13 for detailed functions.

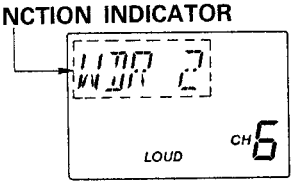
㉔ TRAFFIC PROGRAM (TP) INDICATOR

"TP" will appear in the LCD display when an RDS broadcast station providing traffic information is received.

㉕ [AF] ALTERNATIVE FREQUENCIES (AF) SWITCH

Making use of the AF service of the RDS stations (i.e., a list of broadcast stations which carry the same content as the station currently being received), this switch is used for the automatic selection and reception of a stronger broadcast station that has the same content as the station currently being received. "AF" will appear in the LCD display when this switch is ON to indicate the operation of the AF mode. This switch can only be used at the time of FM reception. See Page 14 for detailed functions.

㉖ FUNCTION INDICATOR



This indicator shows the operating condition of the set.

a. **During Radio Reception (FM)**
   The station name is displayed if the station received is an RDS station (for example, "WDR 2"). The frequency is displayed if the station received is not an RDS station or if the signal is weak.
   If you want to know the frequency when the station name is displayed, press the ❽ SEEK/MANUAL switch for at least 2 seconds. The frequency of the station being received is displayed for approximately 3 seconds, and the station name then reappears.
   The frequency is displayed during the TP search, PI search and RDS search modes. "T" is displayed before the frequency during the TP search mode, "P" during the PI search mode, and "R" during the RDS search mode.
   If alarm code 31 is received, "ALARM" is displayed and an alarm is sounded.
b. **During Radio Reception (MW and LW)**
   The frequency is displayed.
c. **When Using a Cassette Tape**
   "TAPE" is displayed. "AF TAPE" is displayed if the AF switch is on, "TA TAPE" if the TA switch is on.
d. **When Using the CD Changer**
   The number of the disc and track currently playing are displayed. "AF" is displayed before the disc number if the AF switch is on, "TA" if the TA switch is on.

TA Mode

With the TA switch set to ON, the functions of the receiver in the TA mode are as shown below.

TA Operation at the Radio Setting

- If the broadcast station currently being received is not a traffic information station (TP station), the traffic information search (TP search) will be performed and will continue until a traffic information station (TP station) is found, that broadcast station will be received and the name of the broadcast station will be indicated on the display.
- If, during the reception of a traffic information station (TP station), no RDS data is received during 15 seconds, a search for a traffic information station (TP search) will automatically be performed.
- When the broadcast station currently being received is a traffic information station (TP station) and a traffic information broadcast is in progress, if the volume should happen to temporarily be at even the minimum level, the sound will be boosted and it will be possible to clearly hear the traffic information.
- At the time of searching for the traffic information station (TP search), the display frequency will change until the traffic information station (TP station) has been found and the search completed. (TA Operation at the Cassette and CD Settings)
- If no traffic information station is found after searching through the frequencies five times in the TP search mode, the alarm is sounded until a traffic information station is found. The alarm continues sounding even if you switch to a cassette or CD. To turn the alarm off, press the TA or AF switch to turn the TA mode off.
- When the radio is set to the TA mode when listening to the cassette or CD sound, if traffic information is broadcast, the sound will automatically change over from the cassette or CD sound to the traffic information of the radio. If, at this time, the volume should happen to be even at the minimum level, the sound will be boosted and it will be possible to clearly hear the traffic information. When the traffic information comes to an end the set will automatically switch back to the cassette or CD sound.
- If you do not want to listen to traffic information, press the TUNER ON/OFF, TA or AF switch to turn the TA mode off and return to the cassette or CD.
- In the "SEEK" mode, press the ❽ UP TUNING or ❽ DOWN TUNING switch to perform the TP search.
- "TA" is displayed on the LCD during the TA mode, but flashes if RDS data is not received for 5 seconds.
- When the TA button is on and traffic information is broadcast, the volume automatically increases to a certain level. The level can be adjusted.
  Adjustment
  1. Remove the tuner from the sleeve.
  2. The adjustment screw is on the top of the DCR-707R.
  3. Using a screwdriver, turn the screw clockwise to decrease the volume, counterclockwise to increase it.
- Pressing the AF switch during the TA mode will switch off the TA mode and select the AF mode. Or, pressing the TA switch during the AF mode, will switch off the AF mode and select the TA mode.

Caution:

Now in Germany, in addition to the RDS service a separate traffic information system called ARI (SK/DK) is being provided. The DCR-707R cannot receive the traffic information service from this ARI system. The DCR-707R only receives the traffic information service from the RDS system.

AF Mode

With the AF switch set to ON, the functions of the tuner in the AF mode are as shown below.

- **AF Operation At the Radio Setting**

1) If the station being received when the AF switch is turned ON is an RDS station and the AF service is being provided, a stronger broadcast station having the same program contents will be selected and received.
2) If the station being received when the AF switch is turned on is not an RDS station, the RDS search mode is set automatically after 2 seconds, and the search operation continues until an RDS broadcast station is found.
3) If, in the AF mode, the signal of the broadcast station currently being received becomes weak and no RDS data is received for 10 seconds or no station with the same PI code as the station being received is received for 10 seconds, the set will automatically select a station having the same broadcast contents and when the signal of this selected station is strong, this new broadcast station will be received. Or, when the signal of this selected station is weak, the broadcast stations received up until now will be received once, and again another broadcast station with the same program contents will be selected, this operation continuing until a strong station is found.
   Also, if no strong station is found after this operation is performed 10 times consecutively, the PI search mode is set to search for a station broadcasting the same program.
   A beep is sounded and the PI search mode turns off if no station broadcasting the same program if found after going through the frequencies once.
4) When the radio is turned off or switched to AM when in the AF mode with the AF switch on, the RDS data for the station which was being received is stored in the memory. When you return to the FM band, the stored RDS data is used to find the station with the strongest signal broadcasting the same program. (Only for last RDS station received in the FM1 or FM2 band.) (The same operation is performed in the TA mode.)
5) The PI code will be memorized along with the frequency. (The PI code is an index code of the country or reception region and the broadcast program. Note that this function is limited to reception of RDS stations.) When a channel is called for which the PI code has been memorized, if there is a broadcast station on that called frequency it will be received right away. If there is no broadcast station on that called frequency, or if the signals are weak, or if no station with the same PI code as the station in the memory is received within 15 seconds, the PI search will be performed. If the same PI code is found by the PI search and the broadcast station has a strong signal, that frequency will be received. If the whole band is searched and a station with the same PI code is not found, the radio will return to the called frequency for reception and the PI search will be ended. If a call is made for a channel for which a PI code has not been memorized, the PI search will not be performed.
6) For FM1, in addition to the frequency and program code, data on other frequencies broadcasting the same program can be stored in the preset memory. Thus, when a preset button at which frequency data is stored is recalled, it is possible to receive the station with the strongest signal broadcasting the same program, as in number 4) above. (The same operation is performed in the TA mode.)
7) In the seek mode, press the ⑧ UP TUNING or ⑧ DOWN TUNING switch to set the RDS search mode.
8) When using a preset call or manual tuning in the AF mode (by pressing the ⑧ UP TUNING or ⑧ DOWN TUNING switch), if a frequency is received on which the RDS data cannot be received, an RDS search will be performed 2 seconds later.
9) "AF" is displayed on the LCD during the AF mode, but flashes if RDS data is not received for 5 seconds.

- **AF Operation**

When Using Cassette and CD

When the radio is set to the AF mode and the sound is switched to the cassette and CD, the radio will continue to perform the AF operation and so on when the set is switched back to the radio setting, it will be possible to receive a broadcast station with better reception conditions.

- **Operation at the Time of Alarm Code Reception**

At the time of a disaster when emergency needs and other information is being broadcast, RDS broadcast stations may send an alarm code. When this alarm code is received, the alarm sound is output 5 times, urging caution. If the volume should happen to be at even the minimum level, the sound will be boosted and it will be possible to clearly hear the news.

Even when listening to the cassette or CD sound, if the radio is set to the TA or AF mode, the set will switch to the radio and the alarm sound will be output 5 times. Or, if the volume should happen to be at even the minimum level, the sound will be boosted and it will be possible to clearly hear the news.

Also, if an alarm code is received, only the AF, TA and TUNER ON/OFF switches will function. To cancel the boost mode, press the TUNER ON/OFF switch to turn the radio off.

Memory back up battery

Removable type DCR-707R lithium battery powers the memory and preset memory.

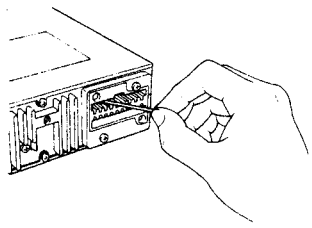
Battery life is about 4 years.

In extremely high or low temperatures the memory back up occasionally does not work properly.

For replacement contact your DENON dealer or local DENON service center.

CLEANING

When playback sound begins to deteriorate, it is time to clean the playback head. Insert a special head cleaning cassette into the tape-loading slot and allow it to run for a few minutes to remove any foreign matter.



The connector at the rear socket sometimes makes poor connection when the unit is frequently detached. Periodically wipe the connector with a cotton swab moistened with alcohol.

PRECAUTIONS

1. Another DENON set cannot be inserted into the sleeve of the DCR-707R. Also note that when the DCR-707R is inserted into the sleeve of another DENON set, it will not operate properly.
2. Always remove the cassette tape from the unit when not in use.
3. When replacing the fuse, the replacement must be of the same amperage as shown on the fuse holder. If the fuse blows more than once, carefully check all electrical connections for shorted circuitry. Have your car's voltage regulator checked also. Do not attempt to repair the unit yourself; return the unit to your nearest DENON Service Station for servicing.
4. In extremely hot weather, let you car's interior cool down before turning your player on. Good air circulation is essential to prevent internal heat build-up in the unit.
5. C-120 type cassette tapes are not recommended for use in automobile tape players.
6. Prevent any foreign objects from entering the cassette slot as the precision mechanism and tape head could be damaged.
7. To protect your cassette tapes, store them in a cool place away from dust, dirt, and strong magnetic sources such as electric motors and TV sets.
8. Check and make sure any slack in the tape is taken up before inserting the tape into the unit. A loose tape could cause damage to the unit and the tape itself. Tighten the cassette by inserting a pencil or a similar instrument into the spindle hole and turn until all the slack has been taken up.
9. The switches used to control the CD Changer will not function if the CD Changer is not connected.

SPECIFICATIONS

FM TUNER

• **Frequency Range**	87.5 MHz ~ 108 MHz
• **Mono Usable Sensitivity**	14.8 dBf 1.5 µV (75 ohm)
• **50 dB Quieting Sensitivity**	20.3 dBf 2.8 µV (75 ohm)
• **Alternate Channel Selectivity**	70 dB
• **S/N (Signal to Noise Ratio)**	60 dB
• **Stereo Separation**	40 dB at 1 kHz
• **Capture Ratio**	2.5 dB
• **Image Rejection**	50 dB
• **IF Rejection**	100 dB

AM TUNER

• **Frequency Range (MW)**	531 kHz~ 1620 kHz
(LW)	153 kHz~ 281 kHz
• **Sensitivity (MW)**	30 µV (S/N 20 dB)
(LW)	60 µV

TAPE

• **Wow and Flutter**	0.12% WRMS
• **Stereo Separation**	37 dB at 1 kHz
• **S/N (Signal to Noise Ratio)**	62 dB (Dolby B NR)**
• **Frequency Response**	
– with METAL/CrO_2/FeCr (70 µS) tape	40 Hz to 16 kHz ±3 dB
– with NORMAL (120 µS) tape	40 Hz to 14 kHz ±3 dB

GENERAL

• **Output Voltage – Pre-amp level**	1 V/10 k ohms
• **Bass**	±12 dB at 40 Hz
• **Treble**	±12 dB at 15 kHz
• **Loudness (Vol. –30 dB)**	+8 dB at 100 Hz
• **Remote Output**	12 V 500 mA max.
• **Chassis Size (W × H × D)**	178 mm × 50 mm × 172 mm (7-1/64" × 2" × 6-25/32")
• **Panel Size (W × H × D)**	187 mm × 59 mm × 13 mm (7-23/64" × 2-21/64" × 33/64")
• **Weight**	1,9 kg (4 lbs 3 oz)

Design and specifications are subject to change for improvement without prior notice.

** Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.

CIRCUIT DESCRIPTION

RDS (Radio Data System)

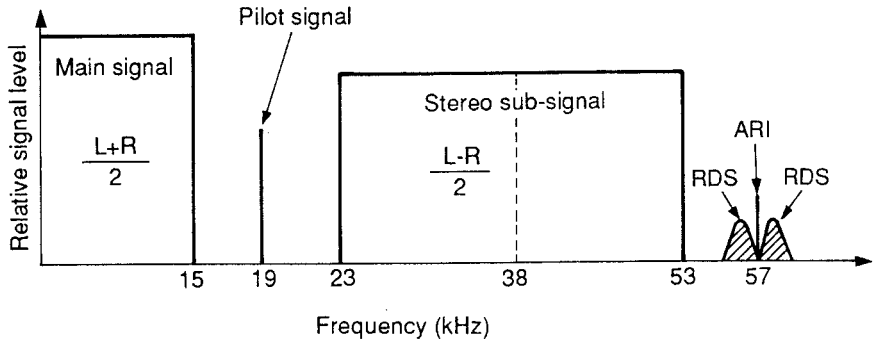
- Car radio is mainly operated by the driver, each time when the car travels out of the service area of a broadcasting station, the driver will have to tune to another station, and an automatic selective tuning is considered as one of a main features of the radio. European broadcasting Union (EBU) has standardized Radio Data System (RDS) to facilitate automatic tuning to the optimum FM broadcasting station. RDS transmits multidata to facilitate automatic tuning to an optimum station which is broadcasting the same program: Identification of traffic information, and display of the station code.

- Main specifications of RDS

Data rate	1,187.5 bps
Signal format	(26,16) modified shortened cyclic code
Baseband signal format	Differential phase shift keying (DPSK)
Subcarrier frequency	57 kHz
Subcarrier frequency modulation	Double Side Band Suppressed Carrier Amplitude Modulation
Maincarrier frequency deviation	±2 kHz

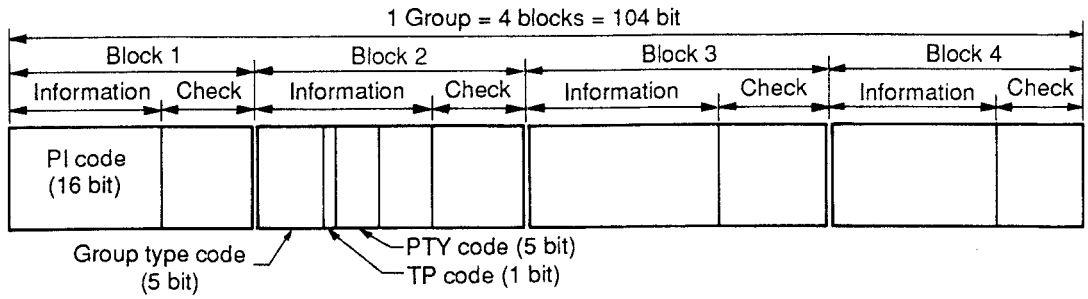
- Data channel

  Data channel employs 57 kHz band to minimize interference to programme band. RDS signal is a signal with bit rate of 1,187.5 bps. modulated by differential phase shift keying (DPSK). This signal comprises the composite signal and an additional signal with subcarries of 57kHz modulated in amplitude by double side band suppressed carriers.



- Data Format

  All data are transmitted in a group unit which comprises 104 bit. The 104 bit unit comprises 4 groups, which format 26 bit group respectively. Each group comprises 16 bit information words and 10 bit check words. Data in each group are specified depending on the situation: The first 16 bit of the first group is always the program identification (PI) code, the first 5 bit of the second group is a group-type to clarify the group application, the next 1 bit is Traffic program Identification (TP) code, and the following 5 bit is Program Type (PTY) code. Each contents of data is specified for remainder of the second block, the third and fourth block data respectively.



PI: Program Identification Code (Country identification, Area coverage, Programme reference number)
TP: Traffic Program identification Code.
PTY: Program Type Code (News, Light music, Education, Sports, etc.)

RDS Control

1. Signal Flow (Refer to Block Diagram)

   Picks up RDS signal from the output (Tuner Module Pin 14) of FM IF IC (IC201/LA1140) through IC901 (LA6458) and 57 kHz BPF T901 (MA-7156). Inputs this signal to RDS decoder IC902 (LA2231) for decoding, further, inputs this signal to synchro correction IC IC903 (LA7070M) to demodulate RDS data, thus RDS data will be demodulated.

   RDS data as in form of serial data consists RDS START, RDS CLK, and RDS DATA is emitted from IC903 and applied to system control microcomputer IC701 (μPD75516G). This IC701 performs DCR-707R related all controls of LCD indication, control of CD changer, etc. besides control of RDS.

2. PS Function: Program Service Name

   A function to indicate a name of broadcast station being received on the LCD by PS code in BLOCK 4. Also, functions to indicate on the LCD when PS code is received through the continual check of PS code without relying on "AF" key or "TA" key if it is FM BAND.

3. AF Function: Alternative Frequencies (frequency list of stations broadcasting the same program)

   An automatic searching function, i.e. when reception condition of RDS station being received becomes poor for some reason, or in case a station being received comes into out of service area and makes no reception as receiving is carried out on the moving vehicle, shifts to a station broadcasting the same program. The automatic searching function only performs at the time "AF" key ON or "TA" key ON state, on the other hand P1 code or AF code is continually checked in FM BAND.

4. TA Function: Traffic Announcement

   A function at the time TA code of 12th bit in BLOCK 2 becomes ON, it automatically shifts the voice to RADIO and listen to traffic announcement even if the voice of cassette or CD changer is in output state. At the same time, sound volume will also be boosted however the volume is set at minimum that can be feasible to listen to the traffic announcement. Note that TA function is only effective in "TA" key ON state.

5. PTY Function: Program Type (only 31, ALARM code)

   With the PTY code of 7th thru 11th bit in BLOCK 2, discriminating the program contents of broadcast being received is feasible. Remind that this model detects only PTY code = 31(ALARM). When it is detected, it automatically shifts the voice to RADIO, outputs the ALARM tone, and automatically boosts the volume level.

   Also, PTY Function does not depend on the "AF" key or "TA" key to effect if it is FM BAND.

6. Search Function

1 AF Search

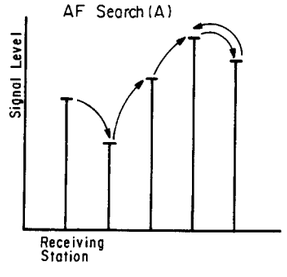
AF search performs automatic search as mentioned in "Paragraph 3. AF Function", also performs the optimum reception searching (to select best receiving condition station among the same PI code broadcast stations) at the time RADIO ON, shifting from LW, MW to FM BAND, or at (*) preset call, etc.

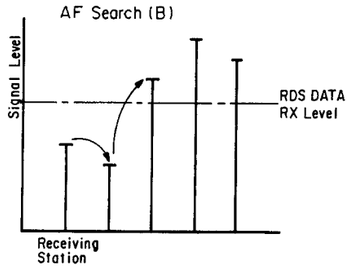
The latter one is called AF Search (A) and the former one is called AF Search (B).

AF search (B) will function when RDS data is unable to receive for 10 seconds (**), or the same PI code is unable to receive for 10 seconds. Also, AF search (B) stops searching when RDS code is enable to receive and at the time searches the same PI code station, then shifts the receiving station. The both AF search (A) and (B) return to the receiving station searching has started when an appropriate station which satisfies the conditions is unable to find in one round search.

(*) FM 1 BAND only. Preset is feasible to memorize 13 stations maximum.

(**)When RDS signal is unable to receive for 5 seconds, AF indication will blink in "AF" key ON state, and TA indication will blink in "TA" key ON state.





2 PI Search

When performing AF Search (A) and receives no RDS station, performing AF Search (B) consecutively 10 times, and receives no RDS station, or PI code is detected however, AF code can not be read and that the performing of AF search is unable to do, then, PI Search will be performed 15 seconds later. This PI Search is Auto Seek and to search the same PI code station, and to produce a "BEEP" tone at beginning of search and indicates 'P' preceding to the frequency display on LCD. And, when searching FM BAND for one round and can not find the same PI code station, produces a BEEP" tone gain to finish searching.

3. RDS Search

   When [<] key or [>] key is pressed (only in SEEK mode), it becomes AUTO Seek, RDS Search to stop only at RDS station. At this time, preceding to the frequency display on LCD indicates 'R' letter. Also, in "AF" key ON state, when wholly has not received PI code or AF code by the station being received (stores no PI code or AF code in the memory of microcomputer) and RDS data can not be received for 2 seconds causes to produce a BEEP" tone and automatically performs RDS search.

4 TP Search

When [<] key or [>] key is pressed in "T" key ON state (only in SEEK mode), become AUTO Seek, TP Search to stop only at a station which TP code is ON in BLOCK 2. At this time, 'T' letter will be displayed preceding to the frequency indication on LCD.

Or, when TP code can not be detected for 15 seconds in "TA" key ON state when turning ON the RADIO or becomes FM mode from MW, LW mode and can not detect TP code for 2 seconds, or at the time a receiving station is not TP station and to turn ON "TA" key, produces a "BEEP" tone and performs TP Search automatically.

Also, when performs TP Search for 5 rounds in BAND and can not search TP station, continually produces "ALARM" tone. This alarm tone continues until finding TP station or when it becomes "TA" key OFF state, it also continues however shifting to cassette or CD mode if "TA" key ON state remains.

7. MODE

DCR-707R has 3 modes: RDS OFF, AF, TA, and the mode will be cyclically shifted with "AF" key and "TA" key.

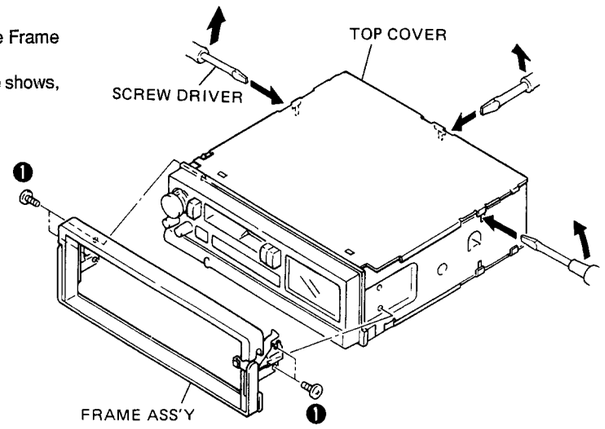
Key In / Present Mode	AF	TA
RDS OFF	AF	TA
AF	RDS OFF	TA
TA	AF	RDS OFF

The following is the effective functions for each mode.

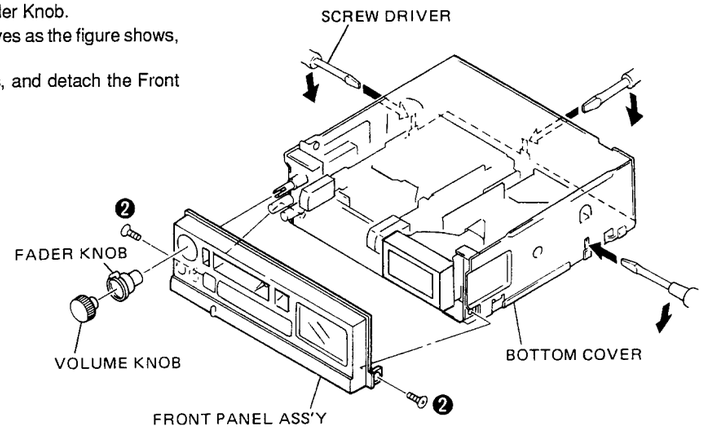
	PS	PTY (ONLY 31)	AF Search	PI Search	RDS Search	TP Search
RDS OFF	O	O	×	×	×	×
AF	O	O	O	O	O	×
TA	O	O	O	×	×	O

REMOVAL OF EACH SECTION

- **Top Cover and Frame Ass'y**
  1) Remove 4 screws ❶ in both sides, and detach the Frame Ass'y.
  2) By inserting a driver at 3 ports grooves as the figure shows, detach the Top Cover.

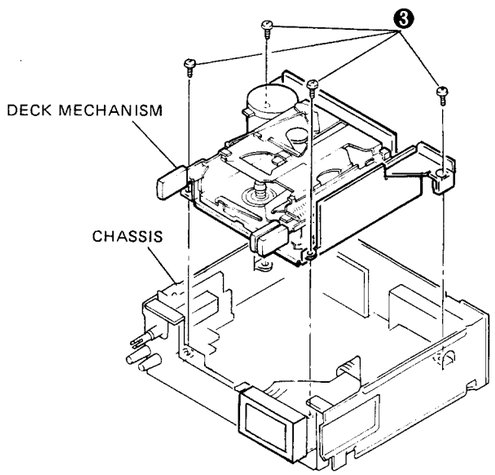


- **Front Panel and Bottom Cover**
  1) Remove the Volume Knob and Fader Knob.
  2) By inserting a driver at 3 ports grooves as the figure shows, detach the Bottom Cover.
  3) Remove 2 screws ❷ in both sides, and detach the Front Panel Ass'y.



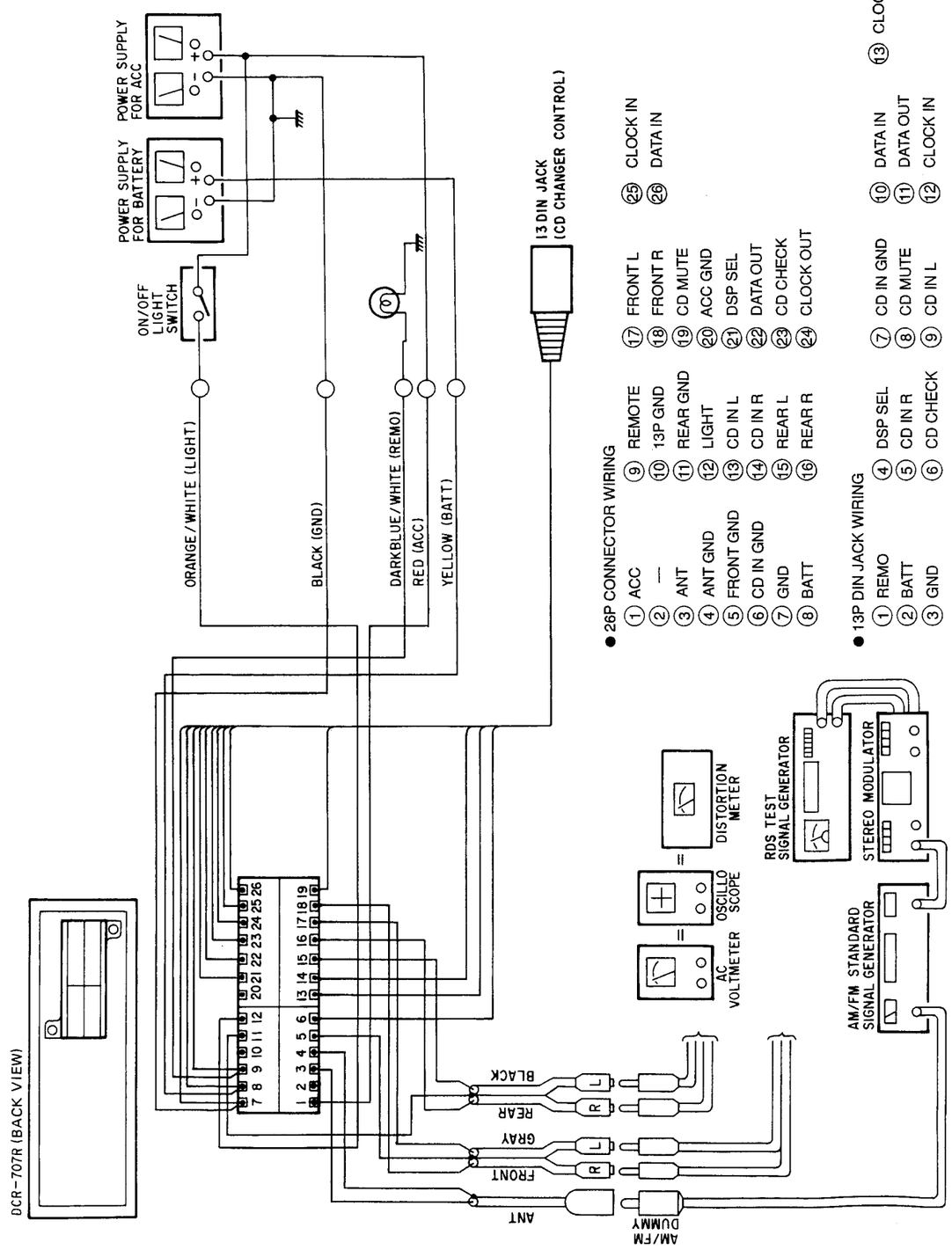
- **Deck Mechanism**

  Remove 4 screws ❸, and pull the Deck Mechanism upward from the chassis.



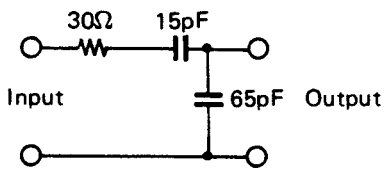
SPECIFICATIONS FOR ADJUSTMENT

● WIRING DIAGRAM

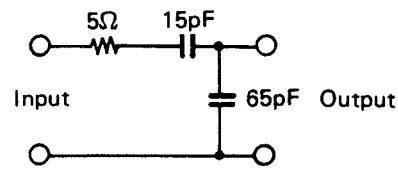


1. Conditions for adjustment (adjustment must be done in the following conditions)
   1-1 Supply voltage — 14.4V DC
   1-2 Temperature — Normal temperature
   1-3 Dummy antenna — Use standard dummy antenna

AM standard dummy



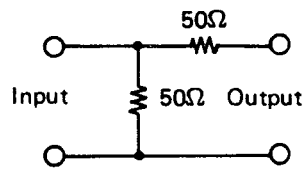
For 50Ω signal generator



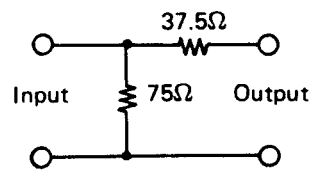
For 75Ω signal generator

Note: Input level should be read at the SG output.

FM standard dummy



For 50Ω signal generator



For 75Ω signal generator

Note: Input level should be read at the unit input (antenna input).

2. Setting of controls before adjustment (controls and switches must be set as follows)
   2-1 Controls
   - Requires semifixed resistors — set at mechanical center position.
   - Balance, bass and treble control — set at machanical center position.
   - Volume at approximate maximum position.
   - Fader balance at center.

   2-2 Switches
   - Dolby B NR**, and LOUD, MONO, LOCAL, METAL AF, TF - set to OFF position.

ADJUSTMENT

There is no change except undermentioned FM ALIGNMENT, FM MPX ALIGNMENT and CONFIRMATION ITEMS (Appendix.)

● **FM ALIGNMENT (Confirm that the LOCAL is not indicated.)** **Table 1**

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
1	Discriminator (FM Det Coil)	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	TP101 0-center meter	Adjust T101 and obtain 0-center meter indication at 0V.	Indication should be within 0 ± 0.05V.
2	FM IF (Tuner Pack)	98.1 MHz 1 kHz, 75 kHz dev Low level without limiter effect	98.1 MHz	LINE Amp output to AC Voltmeter	(Adjust T1 for) maximum output.	Preset by the factory. Adjust only as necessary.
3	Muting	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	Set the Line output to 0 dB and move Ant input from 60 dBμ to 13 dBμ, and confirm that output is –3 dB.	Confirm –3dB limit sensitivity. 13 ±5 dBμ
4	Output level	98.1 MHz 1 kHz, 75 kHz dev 60 dBμ (Ant input)	98.1 MHz	LINE Amp output to AC Voltmeter	None	Set the Volume control at maximum. Confirm that LINE Amp output is within 1.25V ± 0.35V (center 1.25V)
5	Auto-stop level	98.1 MHz 1 kHz 75 kHz dev 17 dBμ (Ant input)	98.1 MHz	None	Adjust RT2 and set to the range.	Select appropriate frequency point and search. Confirm that auto stop functions at 17±3dBμ ANT input.

● **FM MPX ALIGNMENT (Confirm that the MONO is not indicated.)** **Table 2**

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
6	Pilot Canceler	98.1 MHz Pilot Only	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT5 to set to the minimum point of L and R LINE 19 kHz output. (Balance output)	
7	Separation	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5kHz dev 60 dBμ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT6 for optimum L and R separation.	

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
8	D.O.R.S III (Auto-blend)	98.1 MHz 1 kHz, 67.5 kHz dev Pilot 7.5 kHz dev 40 dBμ (Ant input)	98.1 MHz	L and R LINE Amp output to AC Voltmeter	Adjust RT4 so that the L and R separation becomes 10 ± 3 dB.	As input 60 dBμ separation occasionally changes for worse when performing adjustment, repeat adjustments. Separation and Auto-blend for any number of times.

● CONFIRMATION ITEMS

Confirmation of High-cut operation

1. Input 98.1 MHz 30%, modulation frequency 10 kHz, set input level 15 dBμ (about) and confirm the waveform by LINE Amp output (or the Speaker output).
2. Keep conditions in which SG level is as it is and an external noise (such as motor rotation noise, etc) is input, and confirm that high-cut is operated. (level down mode)

● RDS ALIGNMENT

Table 3

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Method	Remarks
9	Boost level	98.1 MHz 75 kHz. dev. 1 kHz 60 dBμ (Ant input)		LINE Amp output to AC Voltmeter	Ground the base side of TR558 (DTC323TK). Adjust RT701 so that LINE Amp output voltage reads 60 ±20mVp-p	

● AM (MW/LW) ALIGNMENT

Table 4

Step	Aligning	SG set	Tune in to	Output Connection	Adjusting Point	Adjusting Method	Remarks
10	AM IF	999 kHz 400 Hz 30% Level at no AGC effect	999 kHz	L and R Line Amp output to AC Voltmeter	T51 T52 T53	Preset by the factory. Adjust only as necessary.	
11	Tuning Voltage		531 kHz 1602 kHz			Preset by the factory. Adjust only as necessary.	
12	Tracking	603 kHz 400 Hz 30% Low level without limiter effect 1404 kHz 400 Hz 30% Low level without limiter effect		L and R Line Amp output to AC Voltmeter	None	Preset by the factory. Adjust only as necessary.	
13	Auto-stop level	999 kHz 400 Hz 30% 35 dBμ (Ant input)	Select appropriate frequency point and search.		RT51	None	Indication should be within 35 ± 5dBμ.
14	Output level	999 kHz 400 Hz 90% 74 dBμ (Ant input)	999 kHz	L and R Line Amp output to AC Voltmeter	None	None	Set the Volume control at maximum. Confirm that LINE Amp output is within 1.25V ± 0.25V (center 1.25V)

● TAPE DECK ALIGNMENT

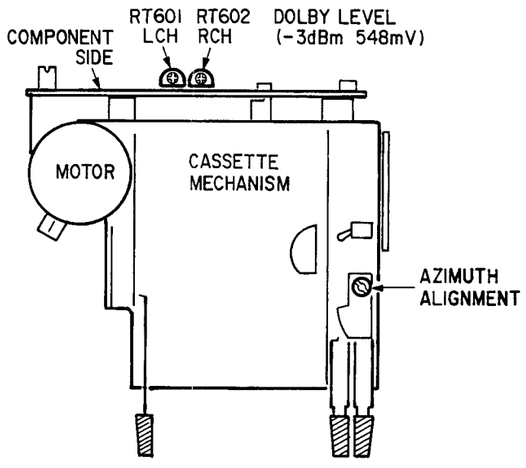
Table 5

Step	Aligning	Test Tape	Output Connection	Adjustment Method	Remarks
15	Tape level	MTT-150 (TCC-130)	IC501 8 pin, 9 pin to AC Voltmeter	Adjust RT601, RT602 obtain –3 dBm (548 mV) on the AC Voltmeter.	Set the Volume control at maximum. Set the Fader control at fully counter-clockwise. Balance, Treble and Bass Control at center position. Confirm that LINE Amp output is within 1.25V ± 0.25V (center 1.25V).
16	Azimuth angle	MTT-144 (TCC-153)	LINE Amp output to AC Voltmeter	Adjust azimuth adjustment screw so that the L and R output level become same and maximum.	Adjust both forward and reverse modes. (Preset by the factory. Adjust only as necessary.)
17	Wow and Flutter	MTT-111 (TCC-111)	LINE Amp output to AC voltmeter		Confirm that Wow and Flutter is within 0.25%.

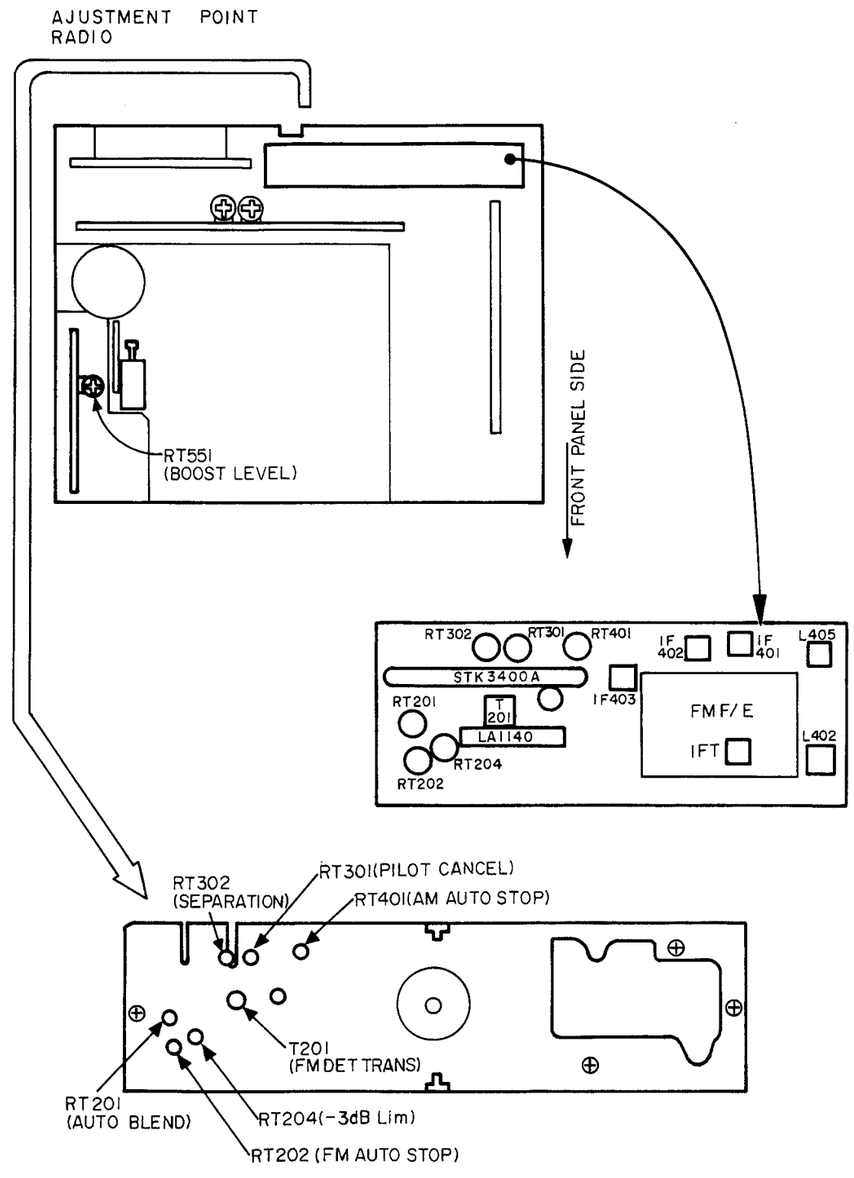
Step	Aligning	Test Tape	Output Connection	Adjustment Method	Remarks
18	Tape Speed	MTT-111 (TCC-111)	LINE Amp output to Frequency Meter.	Adjust volume through hole of motor with a screwdriver.	3000 Hz +3%, –1% (2970~3090 Hz)
19	Play torque (FWD/REV)	TW-2111A (FWD) TW-2121A (REW)	None	None	40~80 g•cm
20	FF/REW torque	TW-2231	None	None	40~130 g•cm
21	Back Tension	TW-2111A (FWD) TW-2121A (REW)	None	None	Less than 4 gcm
22	Tape starting torque	TW-2412 (FWD) TW-2422 (REW)	None	None	More than 80 g•cm
23	FF/REW time	C-60 type	None	None	180 s ± 20 s

ADJUST POINT

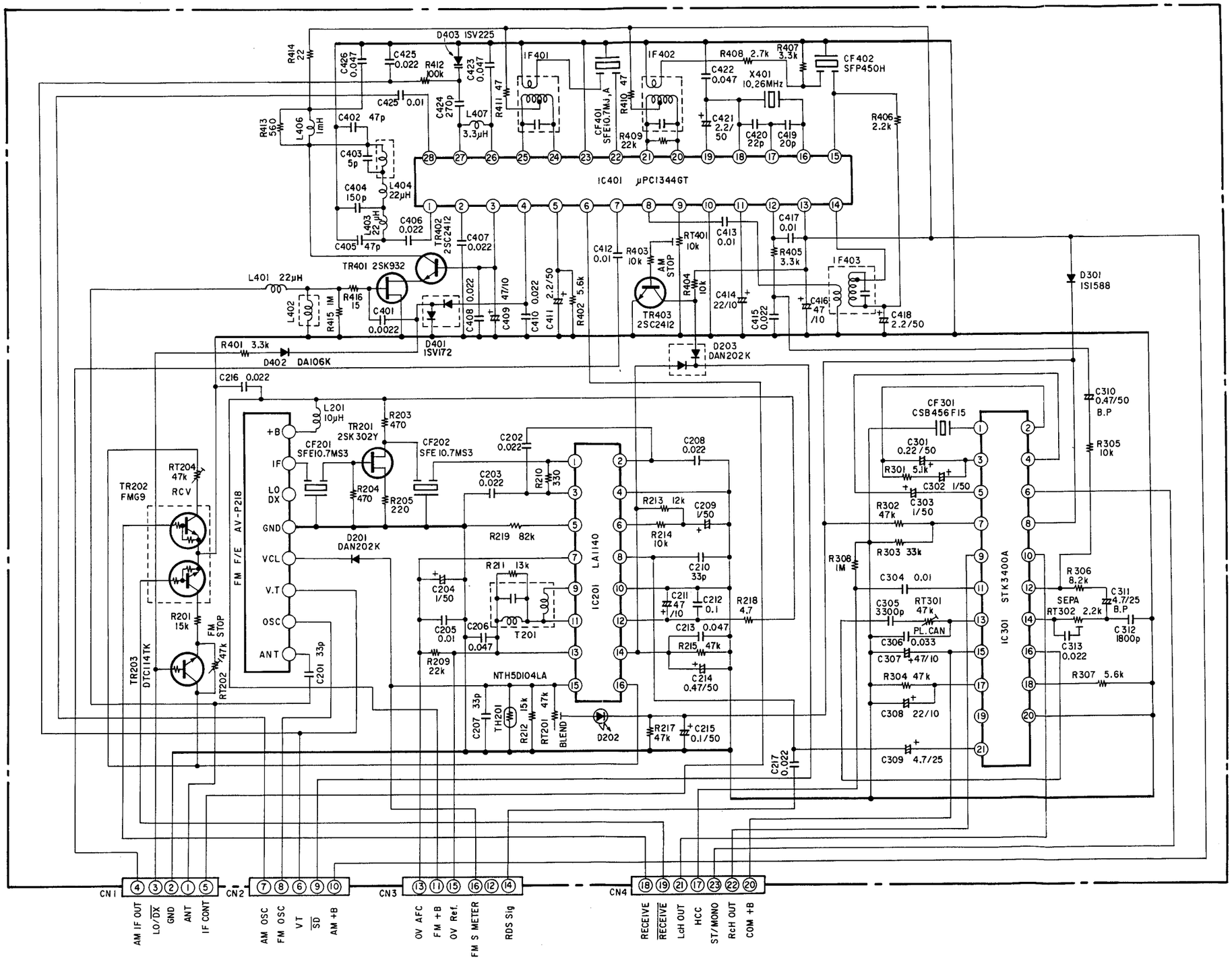
• TAPE



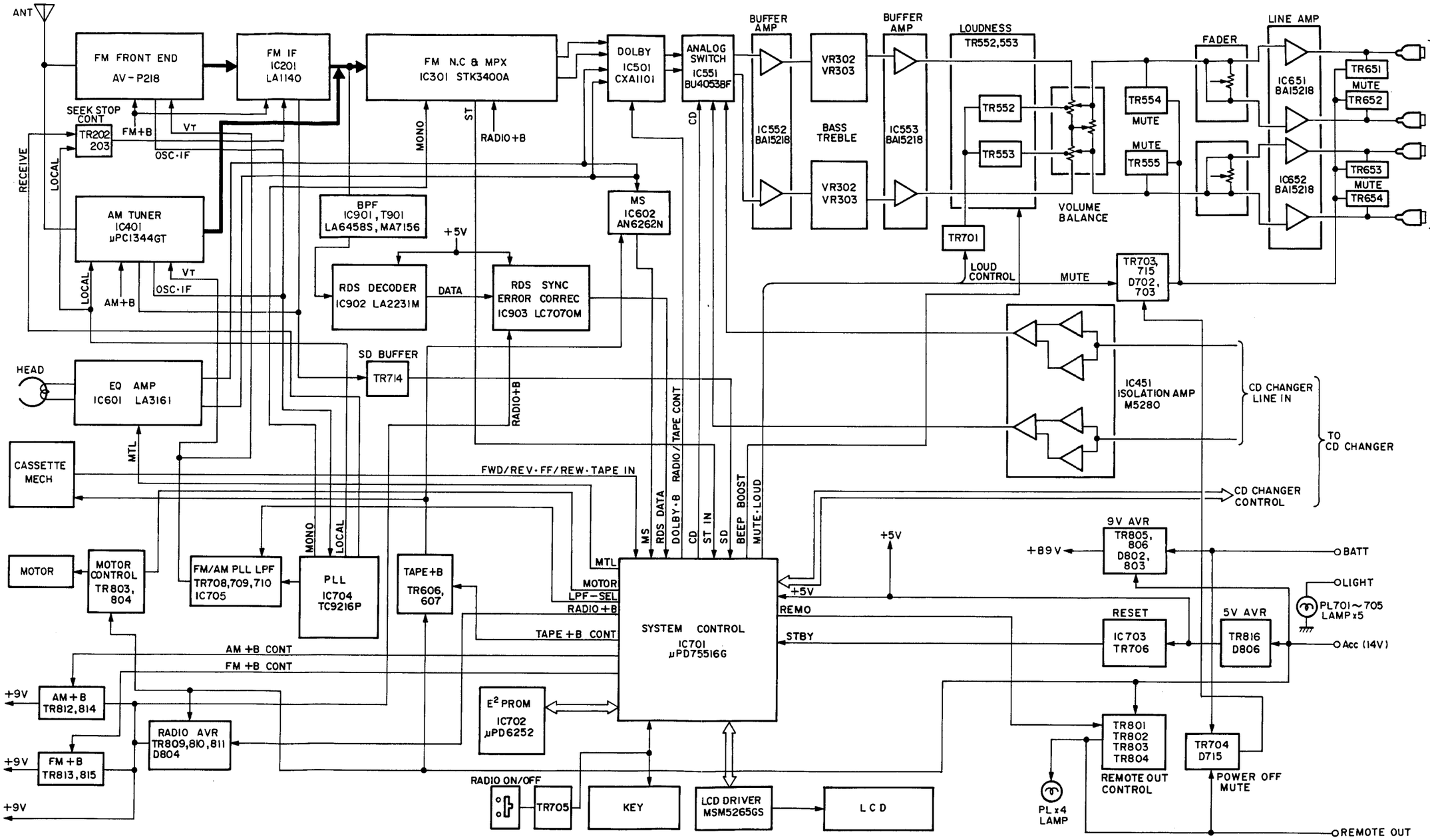
• RADIO



FM/AM TUNER UNIT



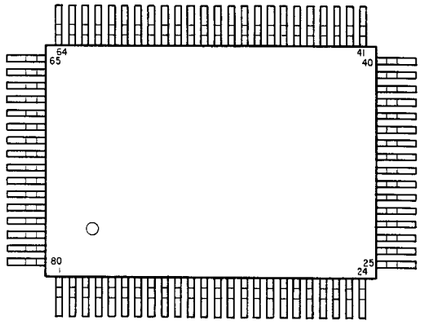
BLOCK DIAGRAM



SEMICONDUCTORS

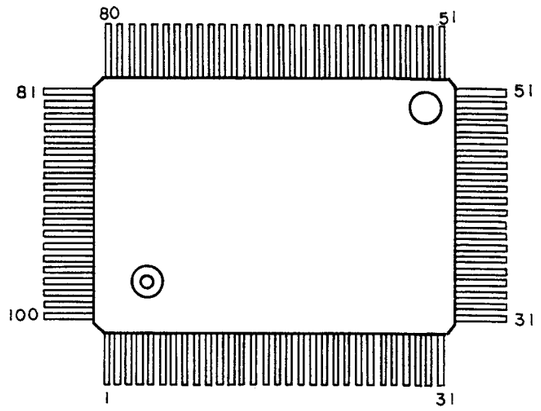
- **IC's**

μPD75516G
(IC701)



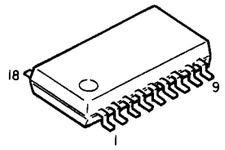
Pin No.	Name of Port	Name	Active	I/O	Description
1	AN0	S Meter		IN	Reception signal strength measuring input.
2	AV ref	AVref IN	L	IN	Reference voltage input terminal of AD converter.
3	VDD	VDD	...	IN	Power input.
4	VDD	VDD	...	IN	Power input.
5	P113	AVref OUT	H	OUT	Reference voltage output terminal of AD converter.
6	P112	MOTOR	H	OUT	ON/OFF control of deck motor. Outputs "H" to turn ON motor.
7	P111			OUT	
8	P110			OUT	
9	P103	TAPE+B	H	OUT	Tape power control, outputs "H" in TAPE mode.
10	P102	RADIO+B	H	OUT	Radio power control output. Outputs "H" at RADIO ON.
11	P101	FM	H	OUT	Outputs "H" at FM band.
12	P100	AM	H	OUT	Outputs "H" at MW, LW.
13	P93				
14	P92				
15	P91				
16	P90				
17	P83 SI 1				
18	P82 S0 1	LCDOUT	...	OUT	Serial output for LCD driver (MSM-5265).
19	P81 SCK1	LCDCLK	...	OUT	Serial clock output for LCD driver (MSM-5265).
20	P80 PP0	LCDLOAD	...	OUT	LOAD data output for LCD driver (MSM-5265).
21	P73 KR7	KDIN4	...	IN	KEY & diode return input.
22	P72 KR6	KDIN3	...	IN	KEY & diode return input.
23	P71 KR5	KDIN2	...	IN	KEY & diode return input.
24	P70 KR4	KDIN1	...	IN	KEY & diode return input.
25	P33	PLLDS		OUT	Serial input/output timing for PLL.
26	P32	PLLCLK		OUT	Serial clock output for PLL.
27	P31	PLLOUT		I/O	Serial data input/output for PLL.
28	P60 KR0			I/O	
29	P53			I/O	
30	P52	DSCAN2	...	OUT	Initial setting diode matrix signal output.
31	P51	DSCAN1	...	OUT	Initial setting diode matrix signal output.
32	P50	KSCAN5	...	OUT	KEY matrix signal output.
33	Vss	GND	...	...	Ground terminal.
34	P43	KSCAN4	...	OUT	KEY matrix signal output.
35	P42	KSCAN3	...	OUT	KEY matrix signal output.
36	P41	KSCAN2	...	OUT	KEY matrix signal output.
37	P40	KSCAN1	...	OUT	KEY matrix signal output.
38	P63 KR3	CS6252	...	OUT	Chip select control output for external RAM (μPD-6252).
39	P62 KR2	SCL6252	...	OUT	Serial clock output for external RAM (μPD-6252).
40	P61 KR1	SDA6252	...	I/O	Serial data input/output for external RAM (μPD-6252).
41	P30	CDCHK		I/O	Resets CD auto-changer. Detects presence of CD auto-changer.
42	P23 BUZ				
43	P22 PCL	CDSELECT		OUT	Decides data transmit timing for CD auto-changer.
44	P21	REMOTE	H	OUT	Informs power ON/OFF to external equipment.
45	P20 PT00	BEEP ALARM	...	OUT	BEEP tone and ALARM tone output terminal.
46	P13 TIO	CDMUTE		IN	Mute timing input terminal from CD auto-changer.
47	P12 INT2	RDSIN	...	IN	Serial data input for RDS decoder (LC-7070).
48	P11 INT1	RDSCLK	...	IN	Serial data clock input for RDS decoder (LC-7070).
49	P10 INT0	RDSSTART	...	IN	Serial data start input for RDS decoder (LC-7070).
50	P03 SIO	CDIN		IN	Serial data input from CD auto-changer.
51	P02 S00				
52	P01 SCK0	CDCLK		IN	Serial clock input from CD auto-changer.
53	P00 INT4	STBY	H	IN	Inputs "L" to stop system clock oscillation and becomes memory hold. Inputs "H" to start system clock oscillation and becomes operating state.
54	Vss	GND			
55	XT1	SUB X'TAL		IN	Not used.
56	XT2	SUB X'TAL		IN	Not used.
57	IC				
58 59	X1 X2	X'TAL	...	IN	Connecting terminal of crystal oscillator.
60	REST	$\overline{\text{RESET}}$	L	IN	System reset input terminal.
61	P143	CDOUT		OUT	Serial data output for CD auto-changer.
62	P142	CDCLK		OUT	Serial clock output for CD auto-changer.
63	P141	IFCONT	H	OUT	ON/OFF terminal of signal for IF count.
64	P140	LPFSEL	H	OUT	VCO filter constant selection output. Output "H" while searching (AF, RDS, PI, TP).
65	P133	MUTE	H	OUT	Mute output terminal.
66	P132	$\overline{\text{BOOST}}$	L	OUT	Outputs "L" at boosting sound volume.
67	P131	LOUD	H	OUT	Outputs "H" at LOUD ON.
68	P130	C.VOICE	H	OUT	Outputs "H" at changing voice of CD auto-changer.
69	P123	T/$\overline{\text{R}}$ VOICE	L	OUT	RADIO/TAPE voice switching output. "L" to RADIO, "H" to TAPE voice.
70	P122	AMS	H	OUT	ON/OFF control output of tape cuing. "L" at PLAY mode.
71	P121	$\overline{\text{METAL}}$	H	OUT	METAL ON/OFF control output.
72	P120	$\overline{\text{DOLBY}}$	L	OUT	DOLBY ON/OFF control output. utputs "L" in DOLBY ON. (TAPE mode)
73	AVss	GND			Standard GND potential terminal of A/D converter.
74	P153 AN7	...	...	...	
75	P152 AN6	FF/REW	L	IN	Detects FF/REW mode. Outputs mute.
76	PI51 AN5	FWD/$\overline{\text{REV}}$	...	IN	Inputs "H" at forward PLAY.
77	P150 AN4	$\overline{\text{TAPEIN}}$	L	IN	Inputs "L" at cassette loading.
78	AN3	ST	L	IN	"ST" indicator input.
79	AN2				
80	AN1	SD	L	IN	Station presence detection input.

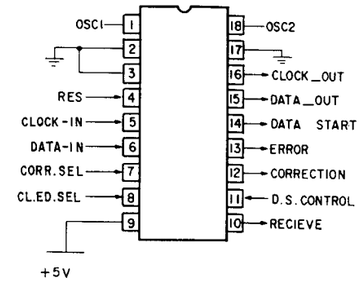
MSM5265GS
(ICxxxx)



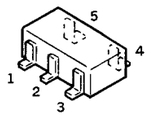
Pin No.	Name of Port	Pin No.	Name of Port	Pin No.	Name of Port	Pin No.	Name of Port
1	SEG 51	26	SEG 76	51	SEG 1	76	SEG 26
2	SEG 52	27	SEG 77	52	SEG 2	77	SEG 27
3	SEG 53	28	SEG 78	53	SEG 3	78	SEG 28
4	SEG 54	29	SEG 79	54	SEG 4	79	SEG 29
5	SEG 55	30	SEG 80	55	SEG 5	80	SEG 30
6	SEG 56	31	LOAD	56	SEG 6	81	SEG 31
7	SEG 57	32	CLOCK	57	SEG 7	82	SEG 32
8	SEG 58	33	DATA-IN	58	SEG 8	83	SEG 33
9	SEG 59	34	DATA-OUT1	59	SEG 9	84	SEG 34
10	SEG 60	35	DATA-OUT2	60	SEG 10	85	SEG 35
11	SEG 61	36	$\overline{\text{OSC-OUT}}$	61	SEG 11	86	SEG 36
12	SEG 62	37	OSC-OUT	62	SEG 12	87	SEG 37
13	SEG 63	38	OSC-IN	63	SEG 13	88	SEG 38
14	SEG 64	39	EXT/INT	64	SEG 14	89	SEG 39
15	SEG 65	40	V_{DD}	65	SEG 15	90	SEG 40
16	SEG 66	41	D/S	66	SEG 16	91	SEG 41
17	SEG 67	42	GND	67	SEG 17	92	SEG 42
18	SEG 68	43	SEG-TEST	68	SEG 18	93	SEG 43
19	SEG 69	44	BLANK	69	SEG 19	94	SEG 44
20	SEG 70	45	$\overline{\text{SYNC}}$	70	SEG 20	95	SEG 45
21	SEG 71	46	COM-OUT	71	SEG 21	96	SEG 46
22	SEG 72	47	V_{LC1}	72	SEG 22	97	SEG 47
23	SEG 73	48	COM-A	73	SEG 23	98	SEG 48
24	SEG 74	49	COM-B	74	SEG 24	99	SEG 49
25	SEG 75	50	V_{LC2}	75	SEG 25	100	SEG 50

LC7070M
(IC903)

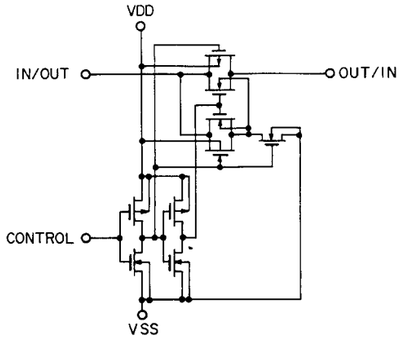




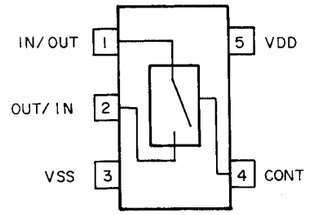
TC4S66F
(IC705)



1:IN/OUT
2:OUT/IN
3:VSS
4:CONT
5:VDD



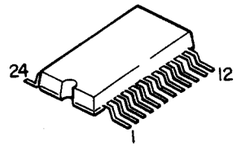
PIN ASSIGNMENT (TOP VIEW)

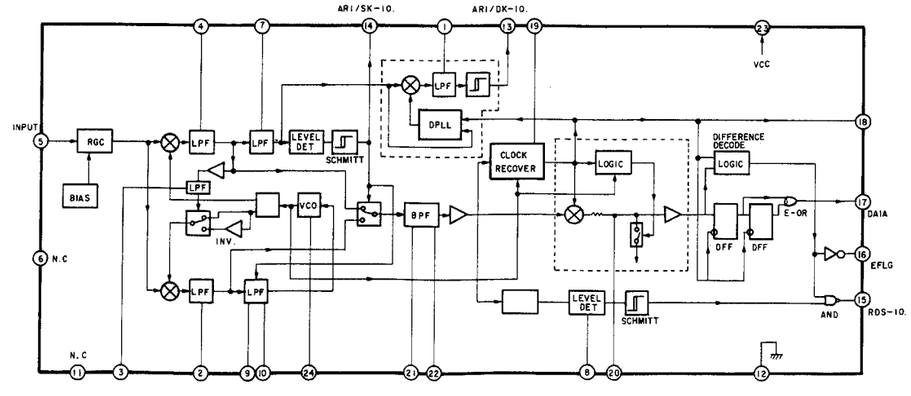


TRUTH TABLE

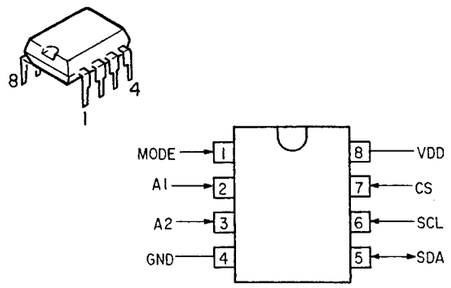
CONTROL	Impedance Between IN/OUT–OUT/IN *
H	$0.5 \sim 5 \times 10^2\ \Omega$
L	$>10^9\ \Omega$

LA2231M(B)
(IC902)

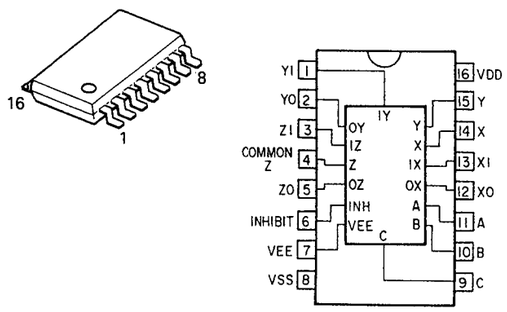




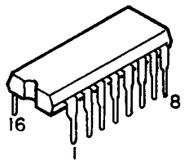
µPD6252C
(IC702)

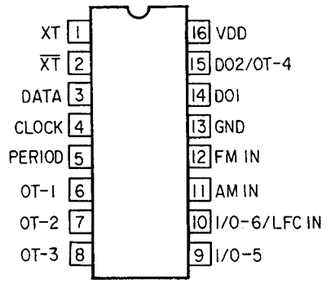


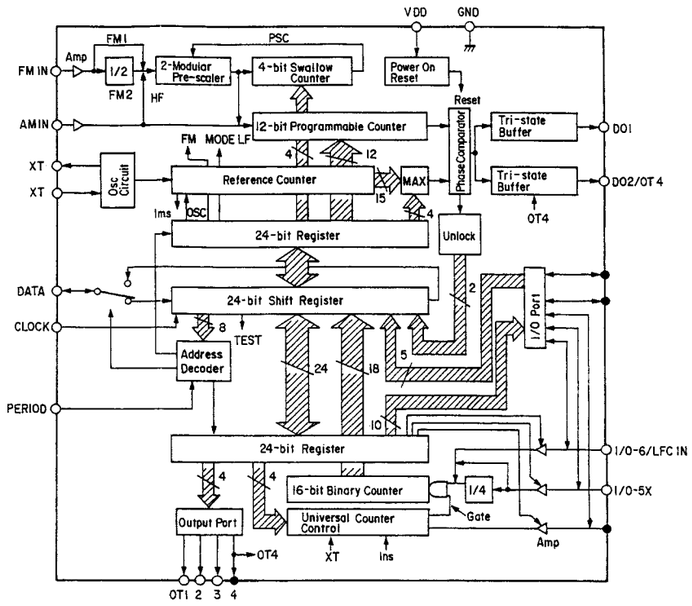
BU4053BF
(IC551)



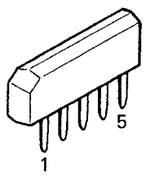
TC9216P
(IC704)

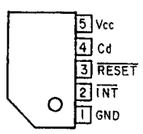


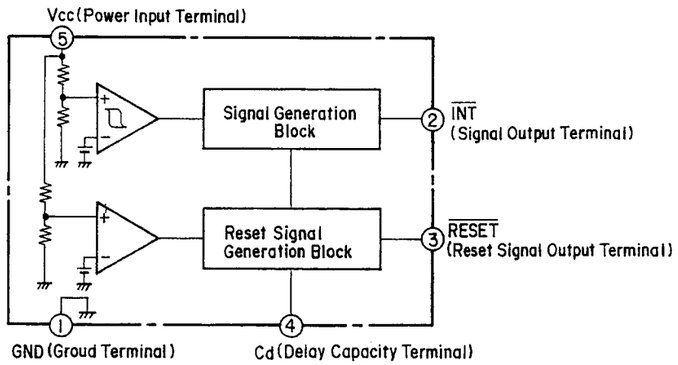




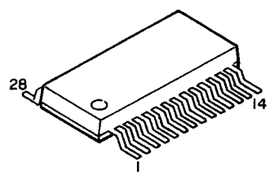
M62006XL
(IC703)

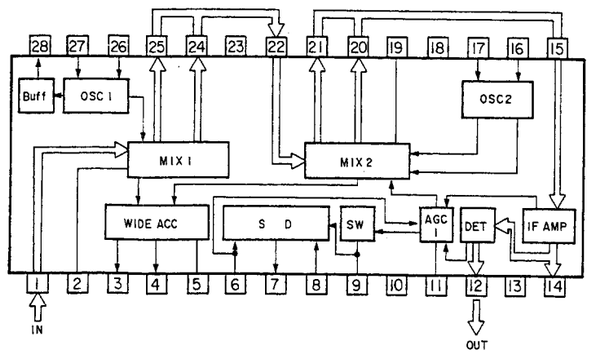




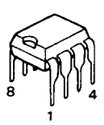


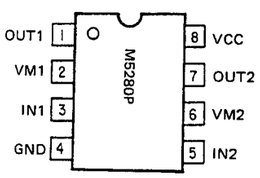
µPC1344GT
(IC401)

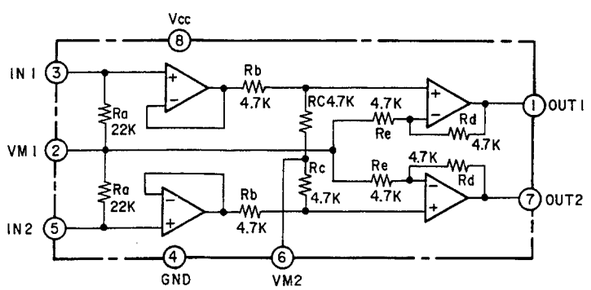




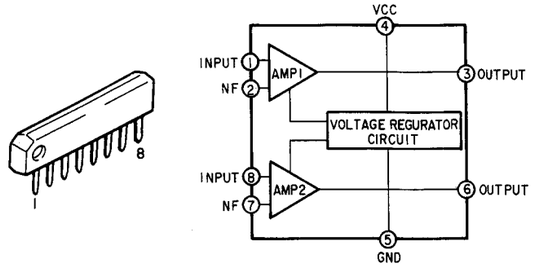
M5280P
(IC451)



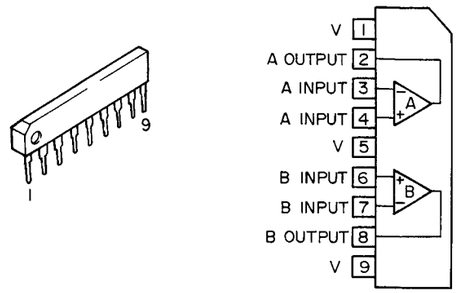




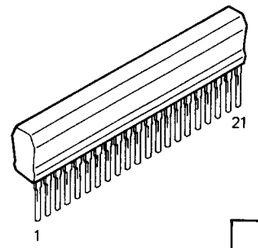
LA3161
(IC601)



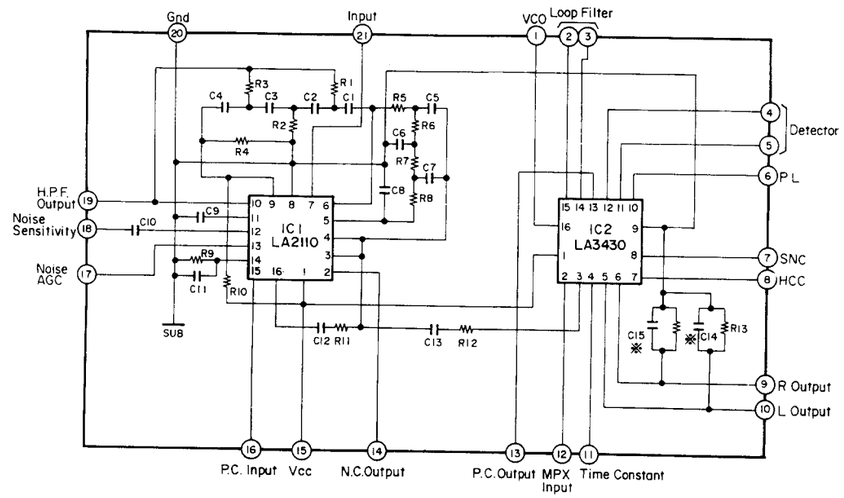
LA6458S
(IC901)



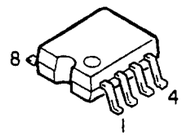
STK3400A
(IC301)

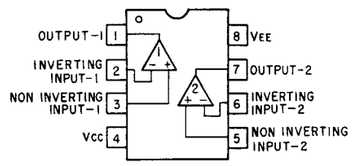


Model	De-emphasis constant
STK-3400A	50µs C14, 15: 0.015µF for Europe

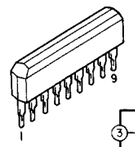


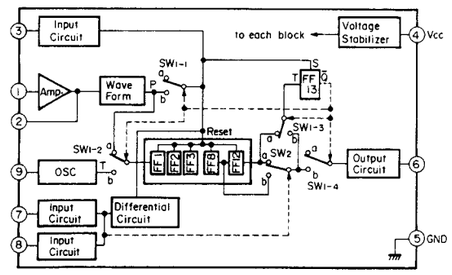
BA15218FP
(IC552, 553, 651, 652)



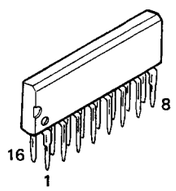


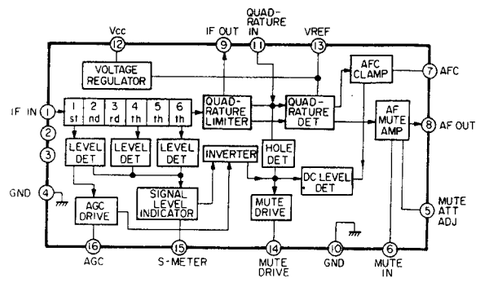
AN6262N
(IC602)



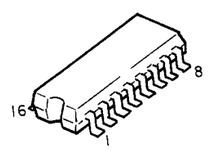


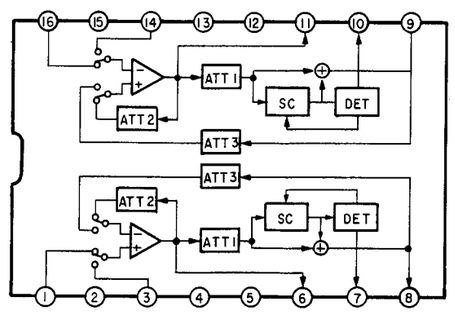
LA1140
(IC801)





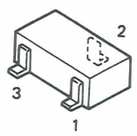
CXA1101M
(IC501)





• TRANSISTORS

Digital Transistor (Includes Resistors)



1:GND/Emitter
2:Out/Collector
3:In/Base

DTA114EK
DTA114TK
DTA125TK
DTA143EK
DTA144EK
DTC144ETK
DTC114EK
DTC114TK
DTC314TK (Chip)
DTC323TK

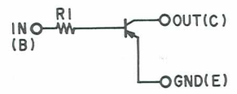
DTAEK Series

	R1	R2
DTA114EK	10KΩ	10KΩ
DTA143EK	4.7KΩ	4.7KΩ
DTA144EK	47KΩ	47KΩ

DTCEK Series

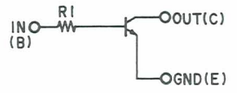
	R1	R2
DTC114EK	10KΩ	10KΩ

DTATK Series



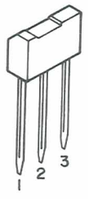
	R1
DTA114TK	10KΩ
DTA125TK	200kΩ

DTCTK Series



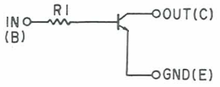
	R1
DTC114TK	10KΩ
DTC144TK	47KΩ
DTC343TK	4.7KΩ
DTC314TK	10KΩ
DTC323TK	2.2KΩ

DTC114EL
DTC114TL
DTC144TL



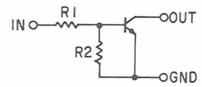
1: Emitter/GND
2: Collector/OUT
3: Base/IN

DTCTL Series



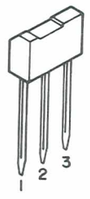
	R1
DTC114TL	10KΩ
DTC144TL	47KΩ

DTCLE Series



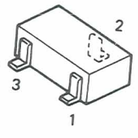
	R1	R2
DTC114EL	47KΩ	10kΩ

2SB1237 (R)
2SD1858 (R)



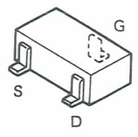
1: Emitter
2: Collector
3: Base

2SA1036K (S)
2SC2412K (R)
2SC2412KLN



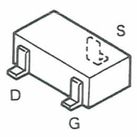
1: Emitter/GND
2: Collector/OUT
3: Base/IN

2SK932-23



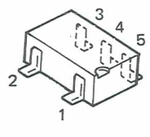
G: Gate
S: Source
D: Drain

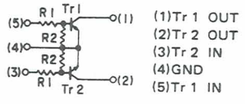
2SK302Y



G: Gate
S: Source
D: Drain

FMG9 (Chip)

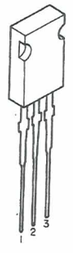




(1)Tr 1 OUT
(2)Tr 2 OUT
(3)Tr 2 IN
(4)GND
(5)Tr 1 IN

R1=10kΩ
R2=10kΩ

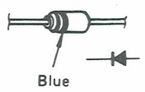
2SD2037 (E)



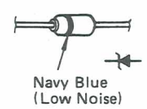
1: Base
2: Collector
3: Emitter

• DIODES (including LED)

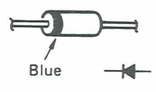
1SS1588



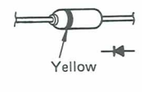
MTZ4.3B, 5k, 3.3B, 3.3A
MTZ6.2B, 7.5C, 10A



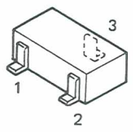
1SR139-200



1SS133



DAN202K
DA204K (Chip)



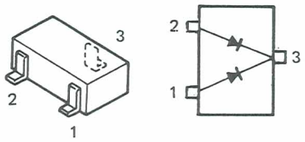
DAN202K

1: Anode
2: Anode
3: Cathode

DA204K

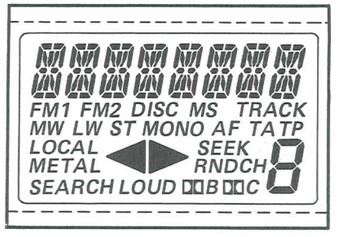
1: Anode
2: Cathode
3: Anode/Cathode

1SV225

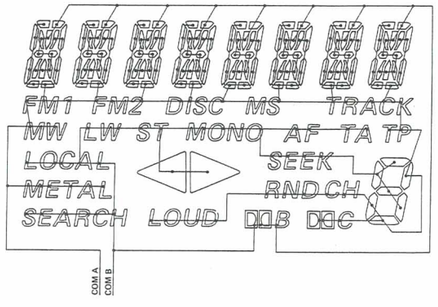


1: Anode 1
2: Anode 2
3: Cathode

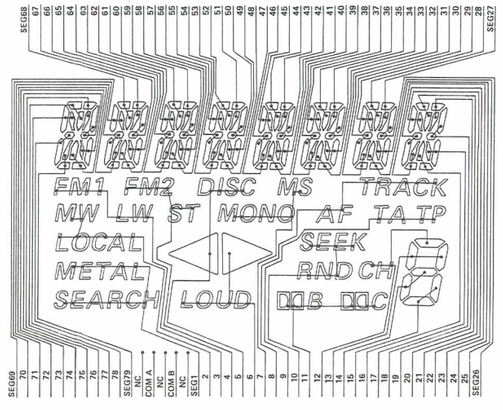
• LCD ASS'Y (FTD6G17AH)



COMMON



SEGMENT



PRINTED WIRING BOARD
MAIN UNIT ASS'Y
Pattern Side

IC501

Pin	Voltage
1	4.4V
2	8.6V
3	4.4V
4	4.4V
5	4.7V
6	4.5V
7	0.4V
8	4.5V
9	4.5V
10	0.4V
11	4.5V
12	0V [4.8V]
13	1.2V
14	0V
15	0V
16	4.4V

IC551

Pin	Voltage
1	0V
2	0V
3	1.4V
4	1.4V
5	4.4V
6	0V
7	0V
8	0V
9	8.8V
10	8.8V
11	8.8V
12	4.7V
13	1.4V
14	1.4V
15	0V
16	8.9V

IC704

Pin	Voltage
1	2.0V
2	2.0V
3	0V
4	4.8V
5	4.8V
6	0.1V
7	0.1V
8	0V
9	4.1V
10	2.1V
11	0V (2.1V)
12	2.1V (0V)
13	0V
14	2.1V
15	1.1V
16	4.2V

IC701

Pin	Voltage	Pin	Voltage
1	4.7V	41	4.0V
2	4.4V	42	0V
3	5.0V	43	2.7V
4	5.0V	44	5.0V
5	5.0V	45	0V
6	0V [5.0V]	46	5.1V
7	0V	47	3.3V
8	0V	48	1.0V
9	0V [5.0V]	49	4.8V
10	5.0V	50	5.0V
11	5.0V (0V)	51	0V
12	0V (5.0V)	52	5.0V
13	0V	53	4.9V
14	0V	54	0V
15	0V	55	0V
16	0V	56	5.0V
17	0V	57	0V
18	0V	58	2.7V
19	5.0V	59	3.0V
20	0V	60	5.0V
21	0V	61	4.9V
22	0V	62	4.8V
23	0V	63	0V
24	0V	64	0V
25	5.0V	65	0V
26	5.0V	66	4.4V
27	0V	67	0V
28	0V	68	0V
29	0V	69	0V [4.9V]
30	0V	70	0V
31	0V	71	0V
32	0V	72	4.9V
33	0V	73	0V
34	0V	74	0V
35	0V	75	1.5V
36	0V	76	4.9V
37	0V	77	4.9V [0V]
38	0V	78	5.7V
39	5.0V	79	4.7V
40	4.9V	80	4.9V

IC703

Pin	Voltage
1	0V
2	4.9V
3	0V
4	5.6V
5	5.7V

IC451

Pin	Voltage
1	4.5V
2	4.5V
3	4.5V
4	0V
5	4.5V
6	4.5V
7	4.5V
8	8.9V

IC702

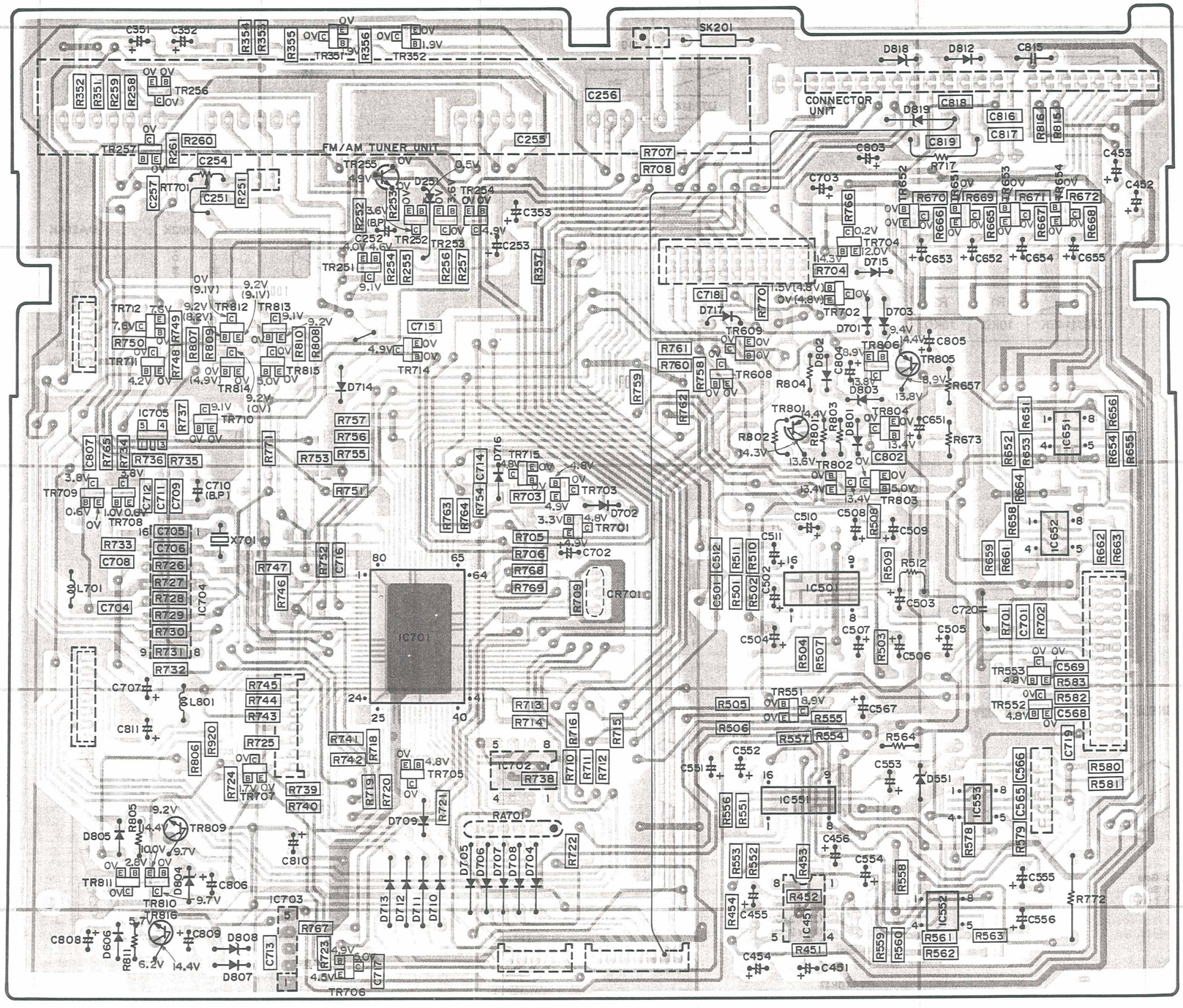
Pin	Voltage
1	4.9V
2	0V
3	0V
4	0V
5	4.9V
6	5.0V
7	0V
8	4.9V

IC705

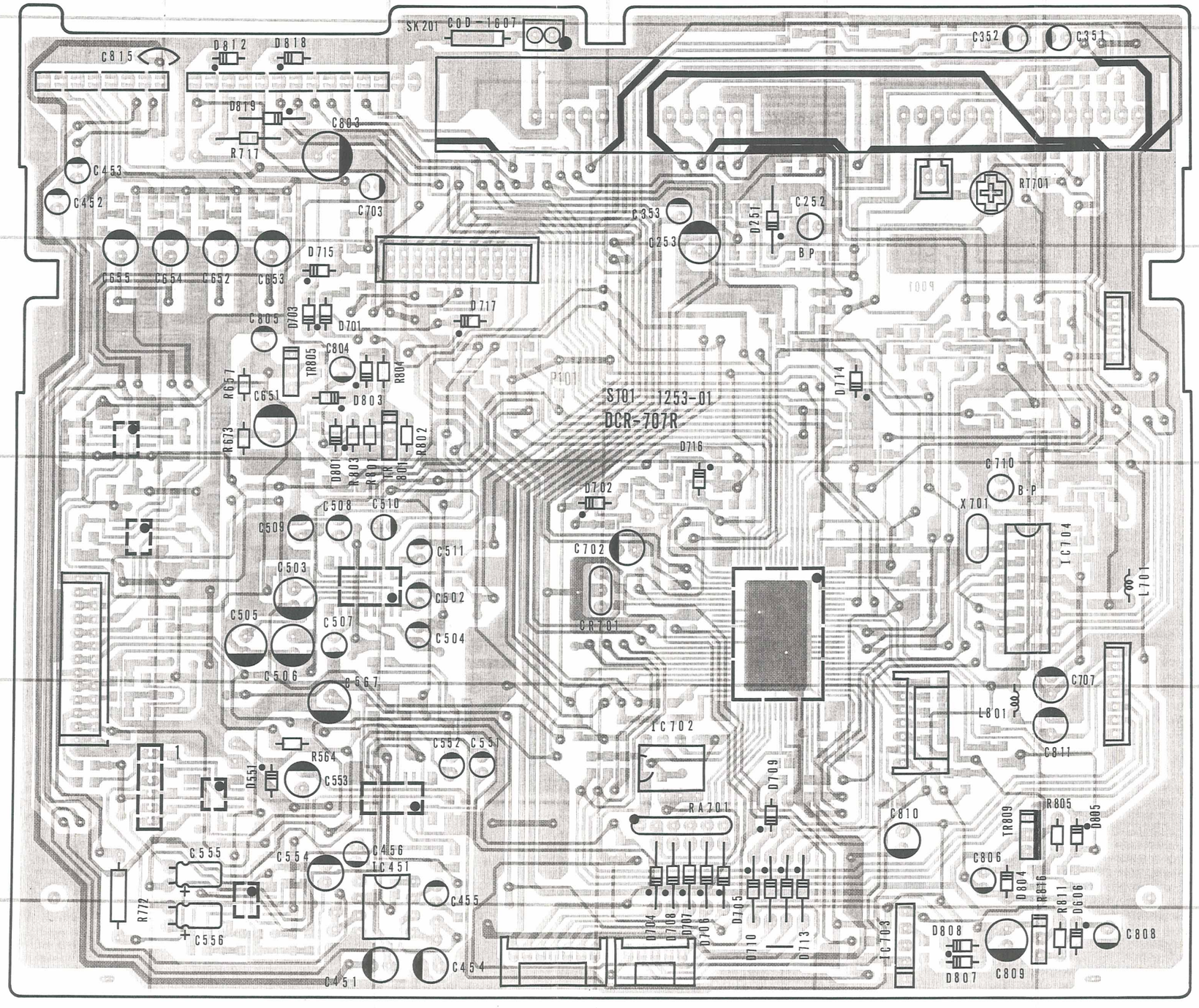
Pin	Voltage
1	3.8V
2	3.8V
3	0V
4	9.1V
5	9.1V

IC552, 553, 651, 652

Pin	Voltage
1	4.5V
2	4.5V
3	4.5V
4	0V
5	4.5V
6	4.5V
7	4.5V
8	8.9V



Component Side



RDS. VR. TONE UNIT ASS'Y

Pattern Side

IC901

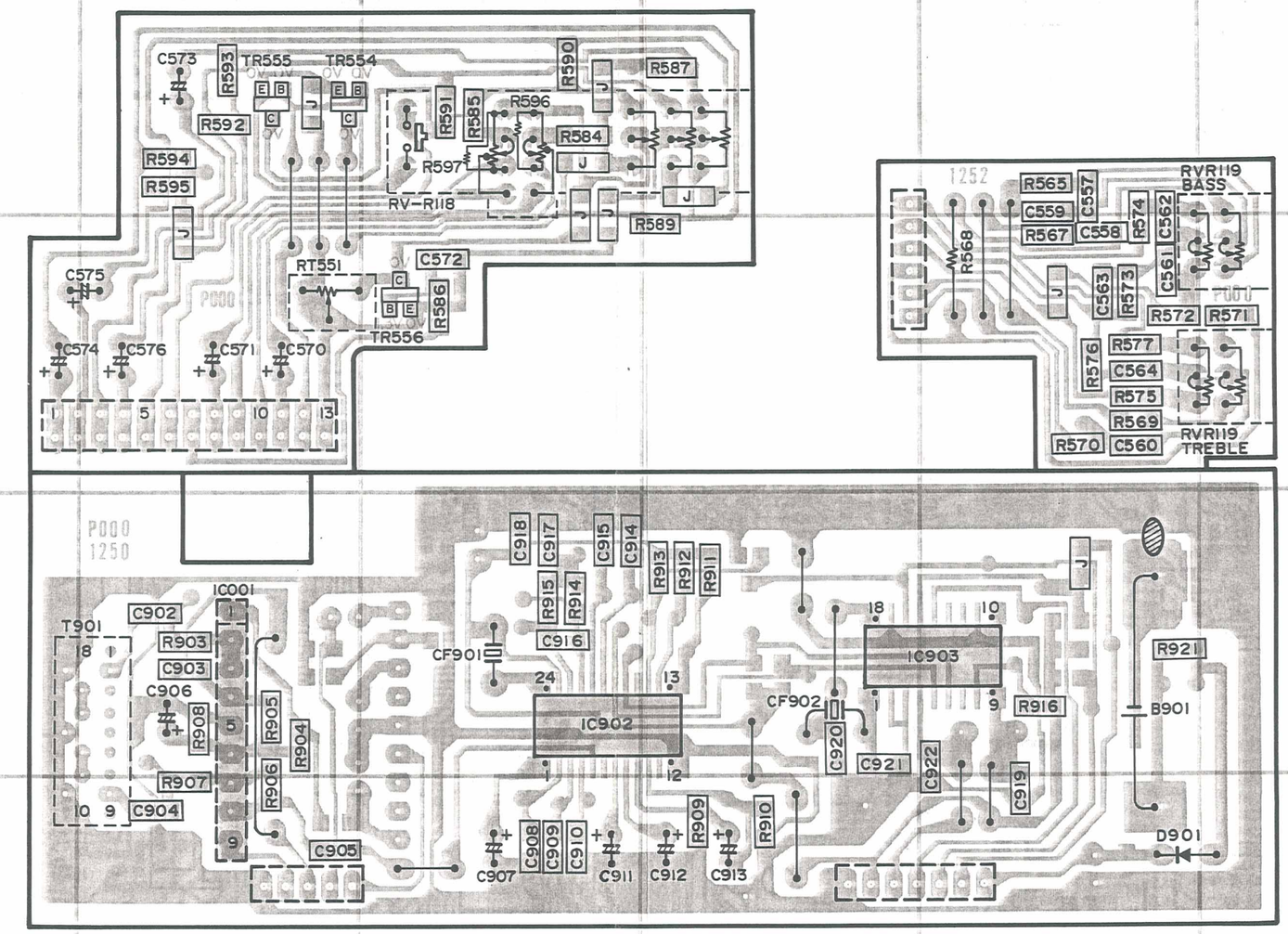
Pin	Voltage
1	9.0V
2	4.5V
3	4.5V
4	4.4V
5	0V
6	4.5V
7	4.5V
8	4.5V
9	9.0V

IC903

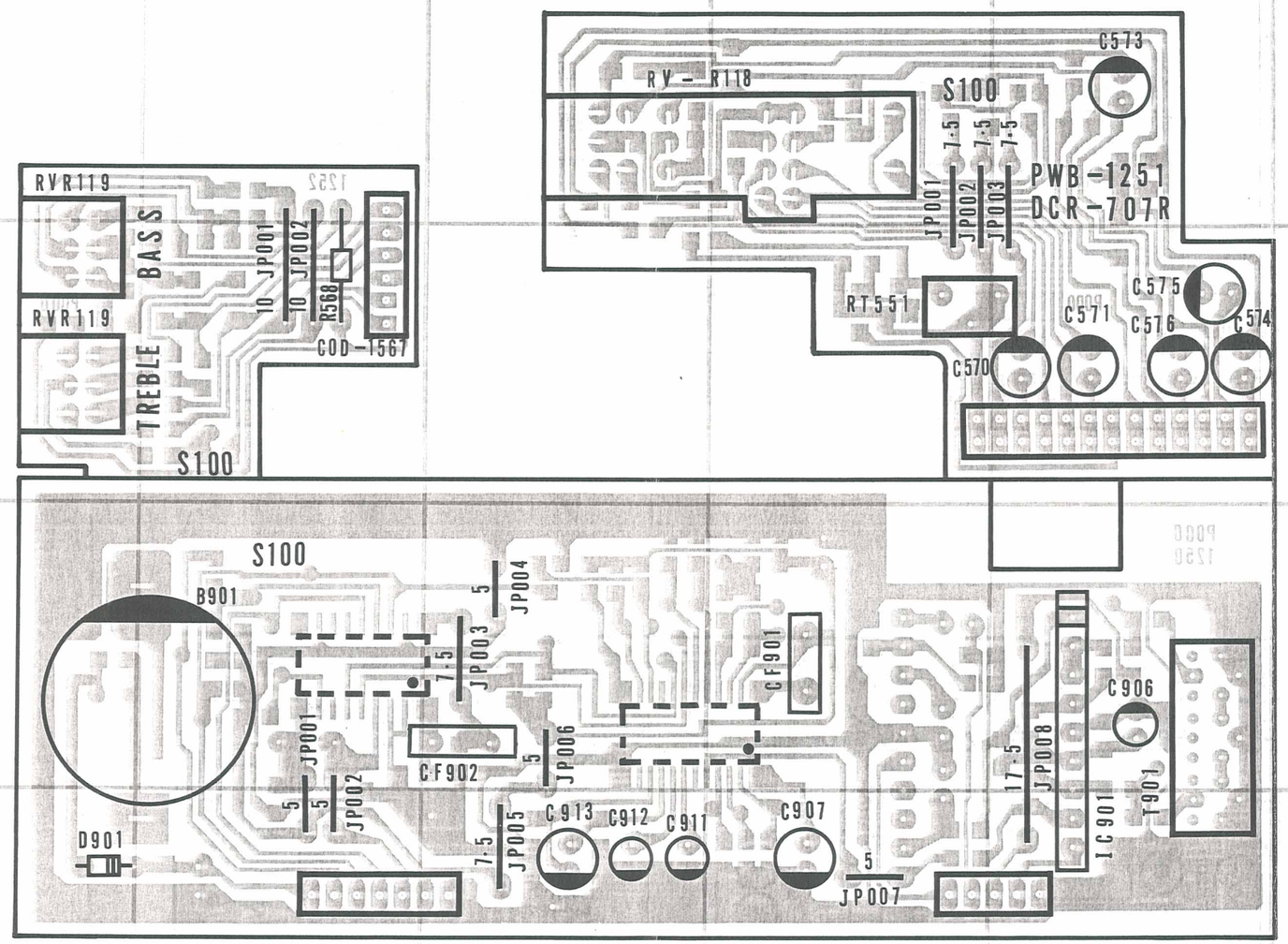
Pin	Voltage
1	0V
2	0V
3	0V
4	4.9V
5	2.4V
6	1.9V
7	0V
8	4.8V
9	4.8V
10	0V
11	0V
12	0V
13	0V
14	4.7V
15	3.2V
16	1.0V
17	0V
18	2.3V

IC902

Pin	Voltage
1	0V
2	1.4V
3	0.4V
4	1.4V
5	2.0V
6	0V
7	2.8V
8	1.0V
9	1.4V
10	0V
11	0V
12	0V
13	4.8V
14	4.8V
15	0.6V
16	0V
17	1.7V
18	2.3V
19	1.8V
20	1.0V
21	2.1V
22	2.1V
23	4.8V
24	3.2V

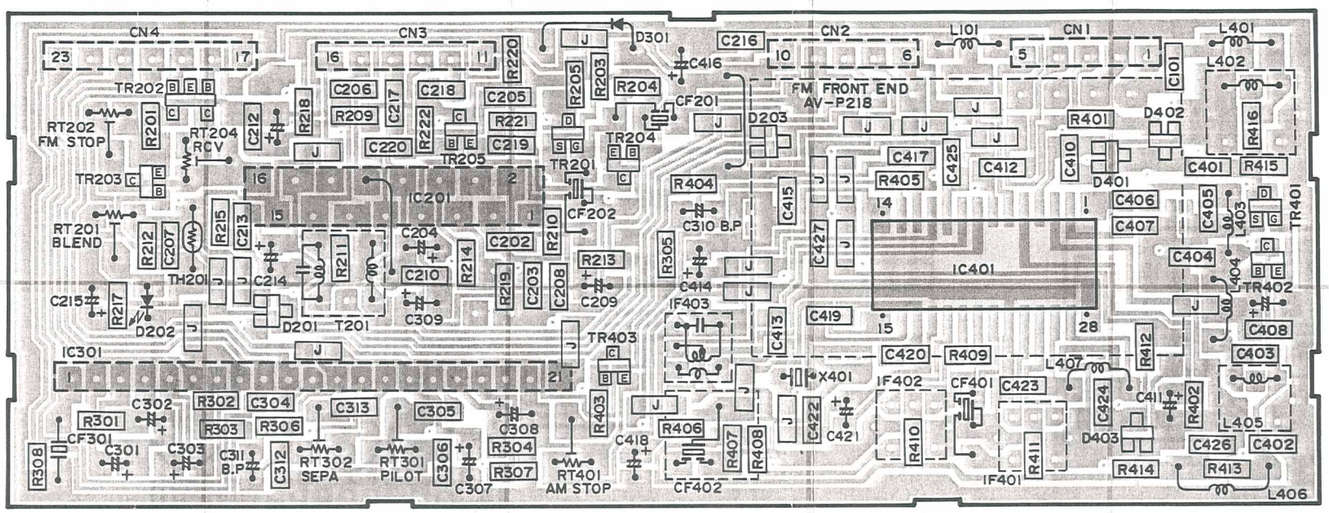


Component Side

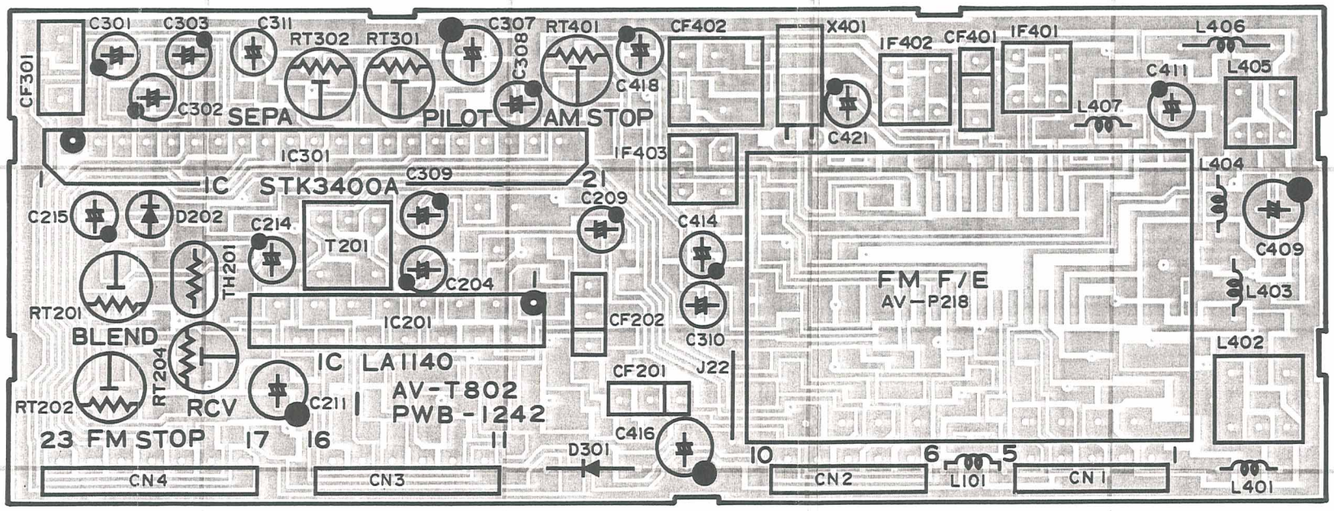


TUNER UNIT ASS'Y

Pattern Side



Component Side



DECK UNIT ASS'Y

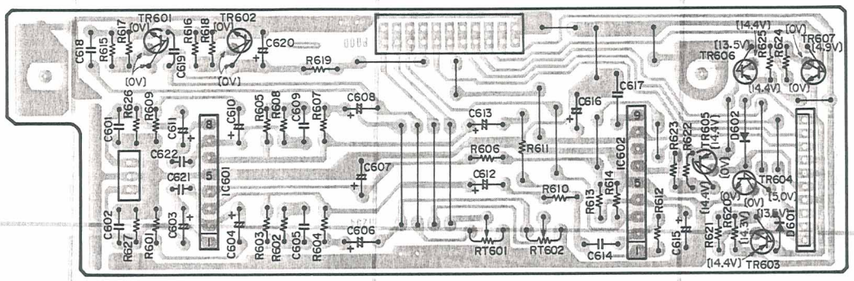
Pattern Side

IC601

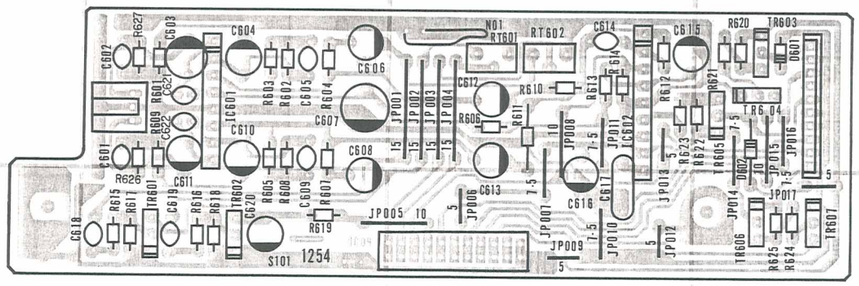
Pin	Voltage
1	[1.3V]
2	[0.8V]
3	[2.8V]
4	[11.9V]
5	[0V]
6	[2.9V]
7	[0.8V]
8	[0V]

IC602

Pin	Voltage
1	[0.1V]
2	[0.1V]
3	[0V]
4	[11.2V]
5	[0V]
6	[14.2V]
7	[1.5V]
8	[4.9V]
9	[2.0V]

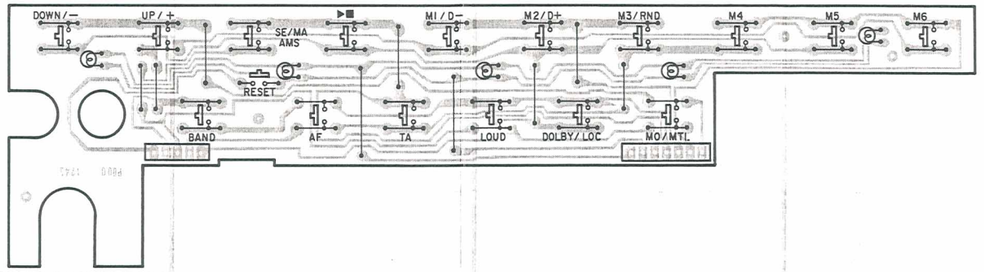


Component Side

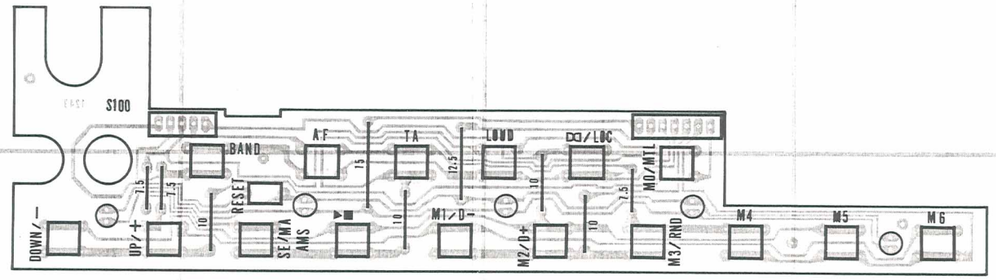


SWITCH UNIT ASS'Y

Pattern Side

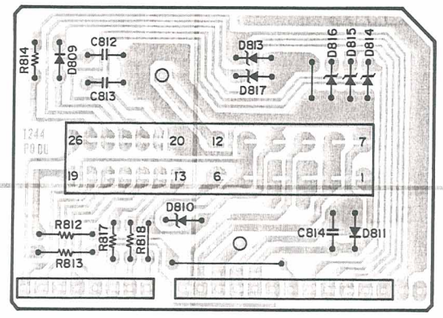


Component Side

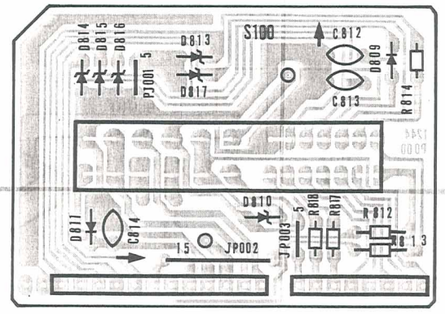


CONNECTOR UNIT AAS'Y

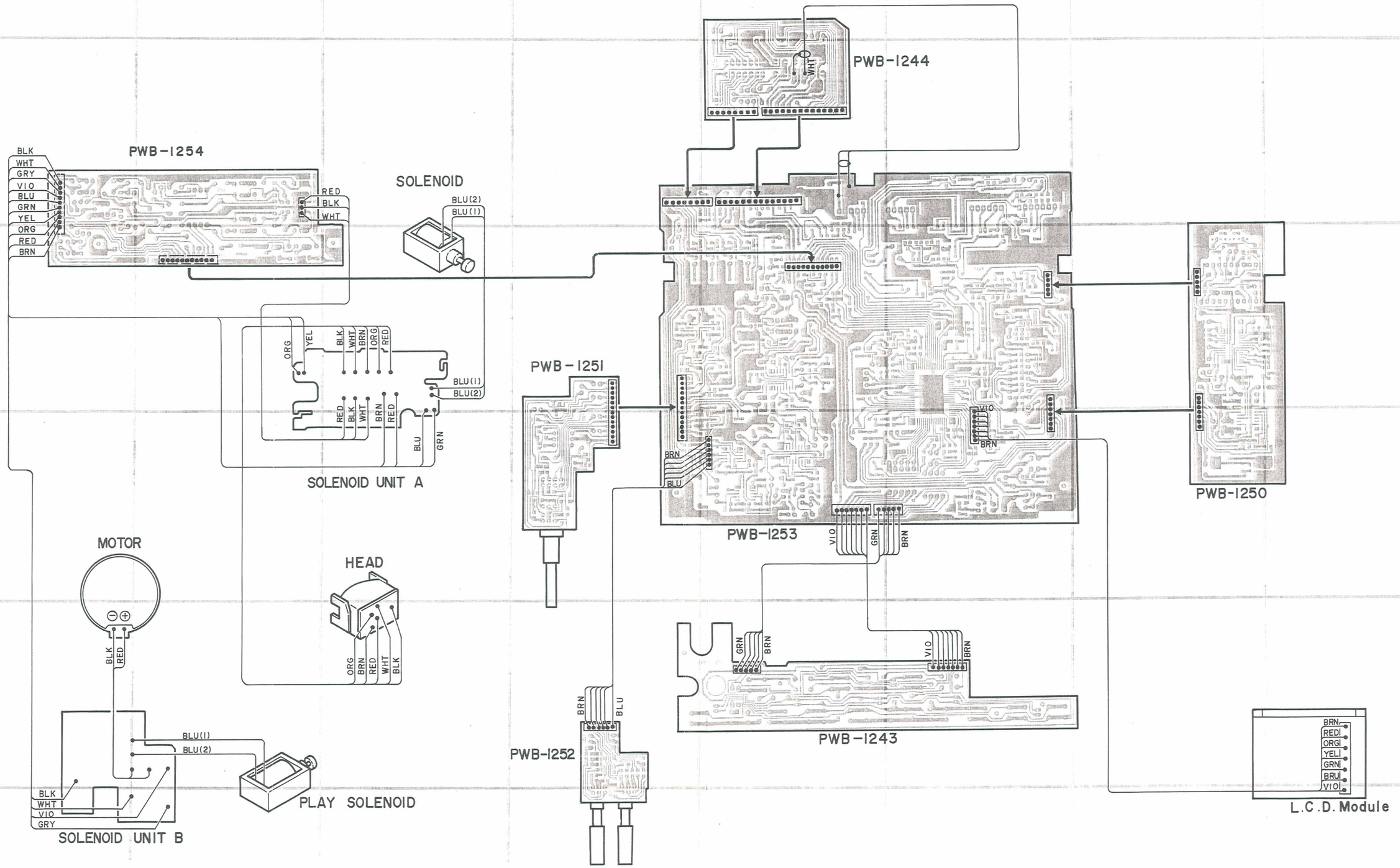
Pattern Side



Component Side

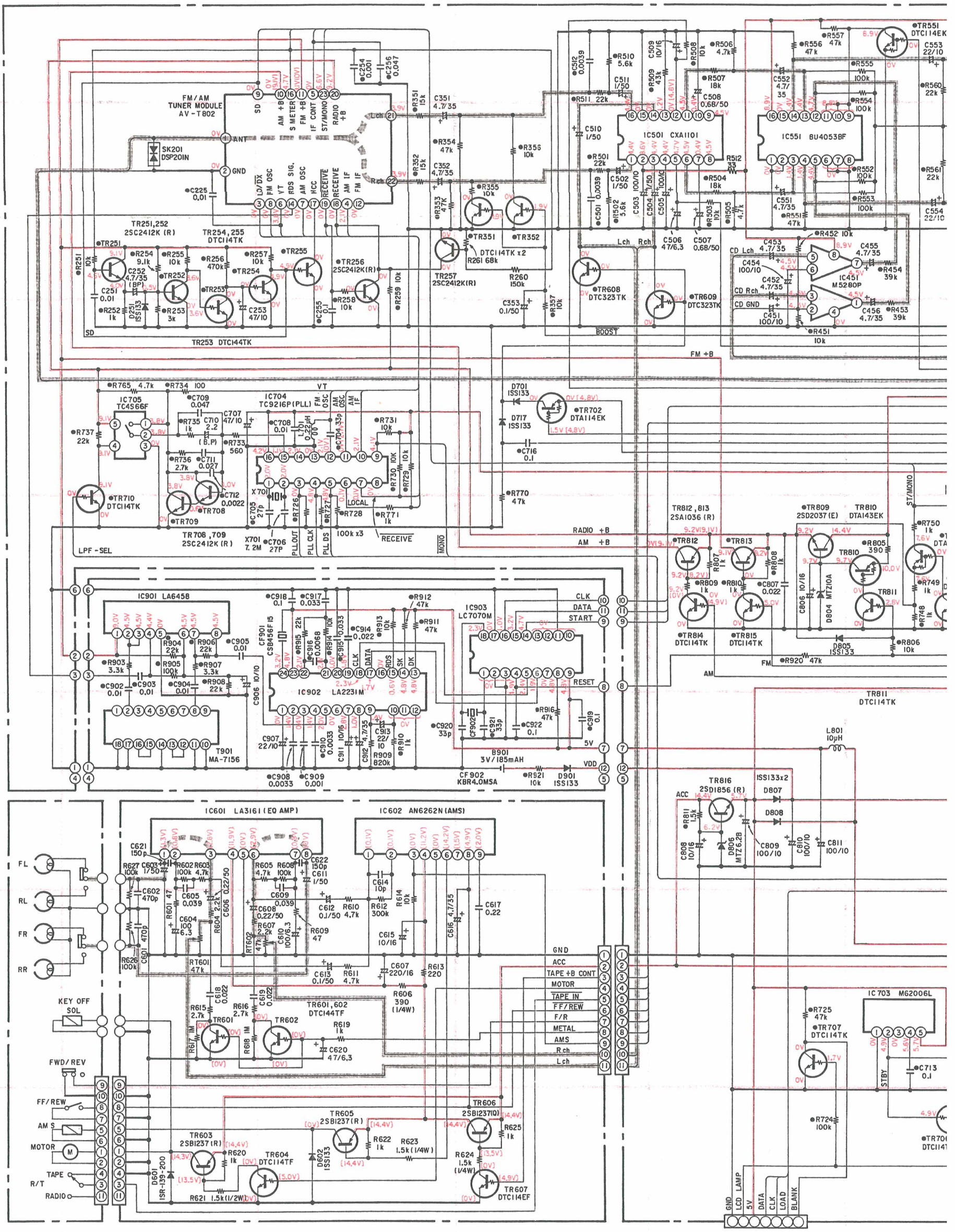


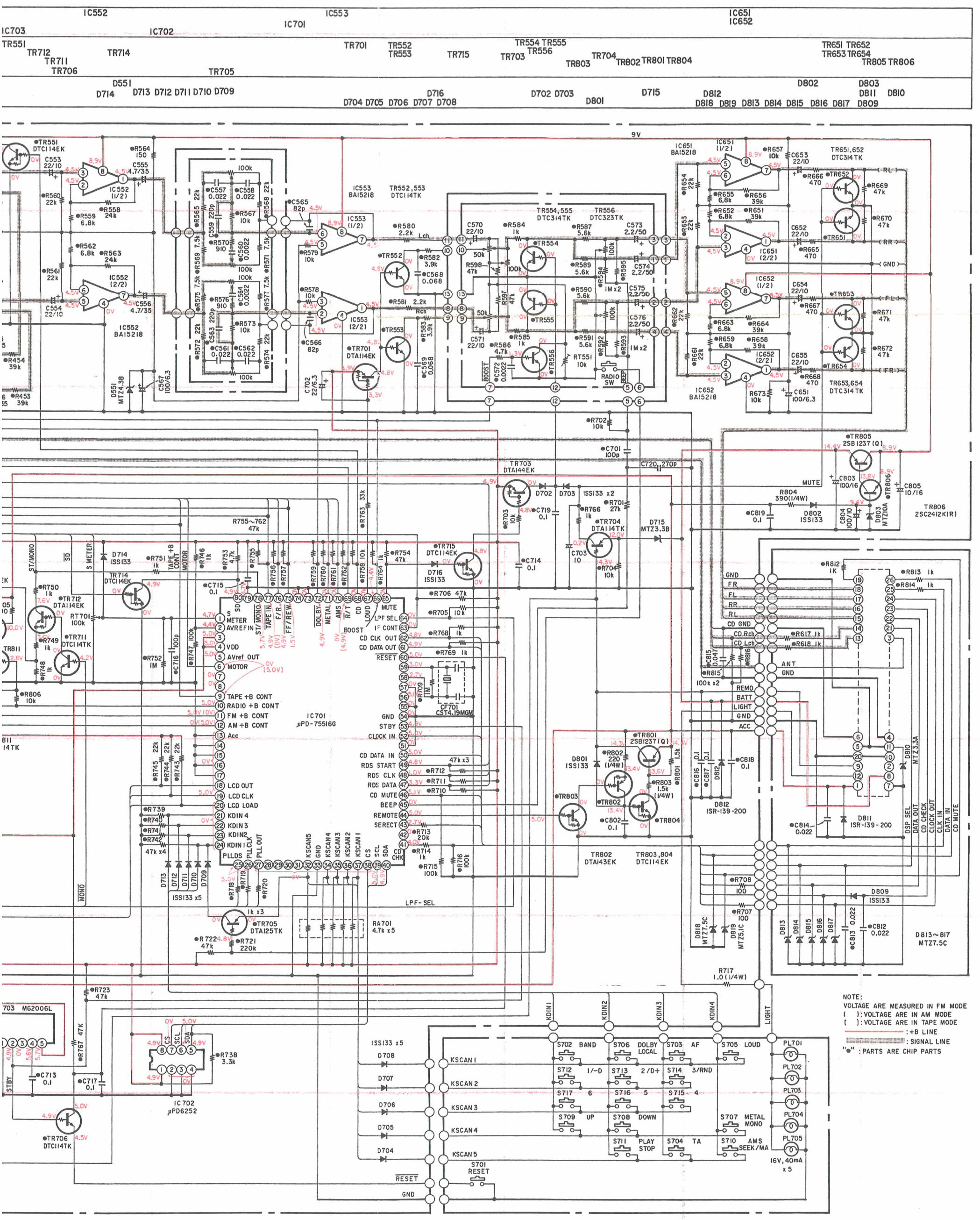
WIRING DIAGRAM



SCHEMATIC DIAGRAM

IC	IC705 IC704 IC501 IC551 IC901 IC902 IC451 IC601 IC602 IC903 IC703
Transistor	TR251 TR252 TR253 TR254 TR255 TR256 TR257 TR351 TR352 TR608 TR609 TR551 TR710 TR709 TR708 TR702 TR812 TR813 TR809 TR810 TR712 TR814 TR815 TR811 TR603 TR601 TR604 TR602 TR605 TR606 TR607 TR816 TR707
Diode (including LED)	D251 D701 D717 D901 D806 D807 D804 D601 D602 D808 D805

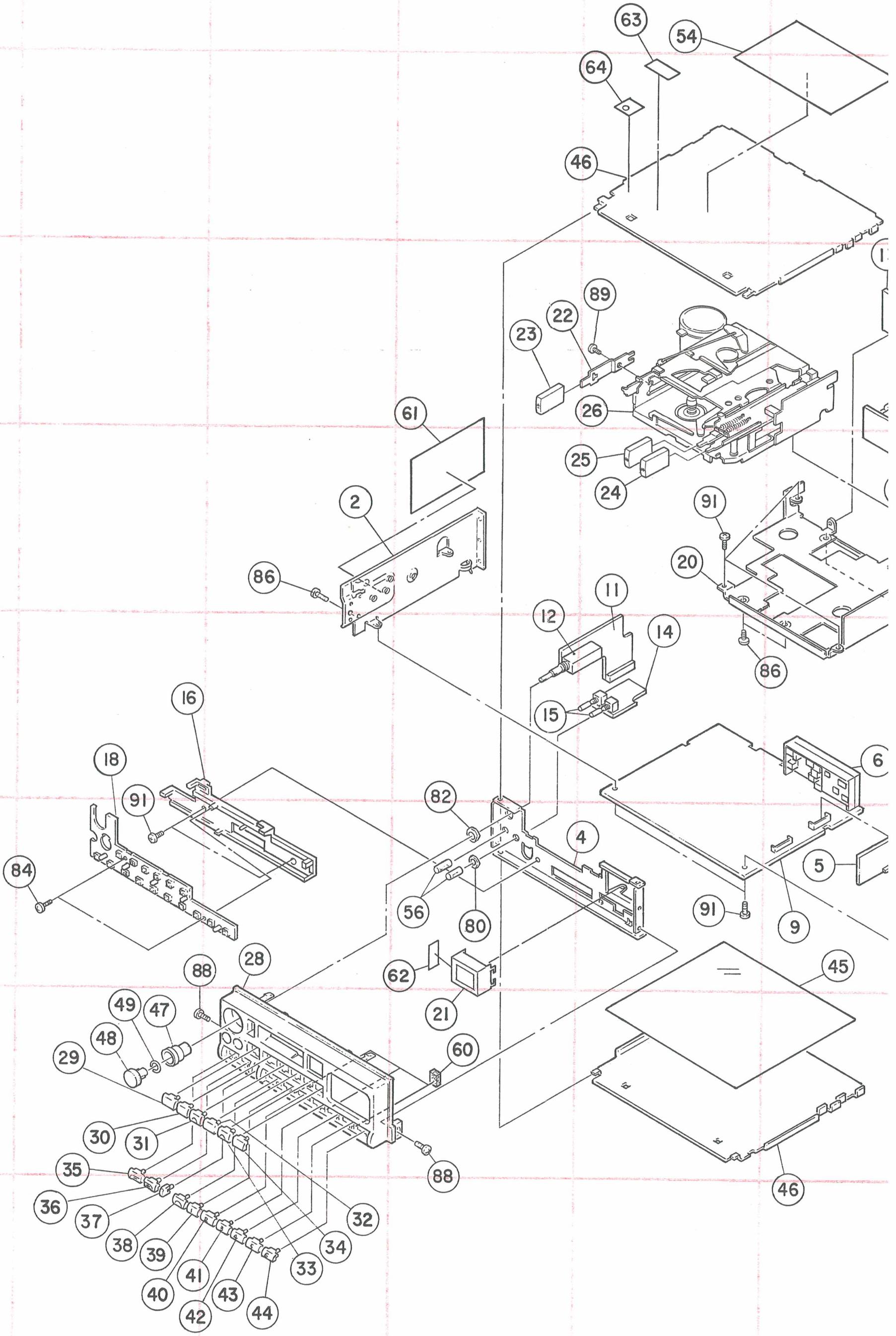


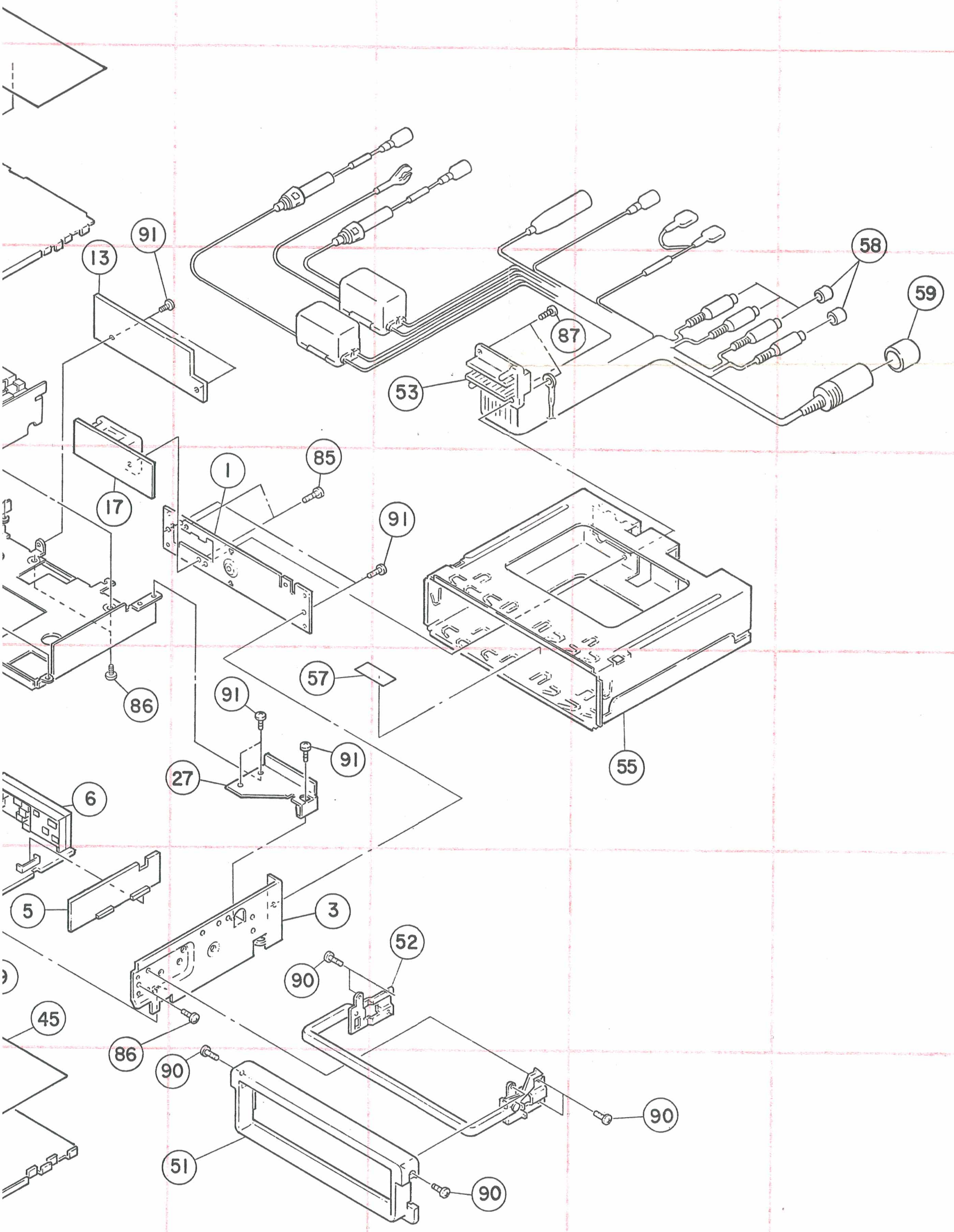


NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

EXPLODED VIEW OF CHASSIS AND CABINET

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EXPLODED VIEW OF PARTS LIST

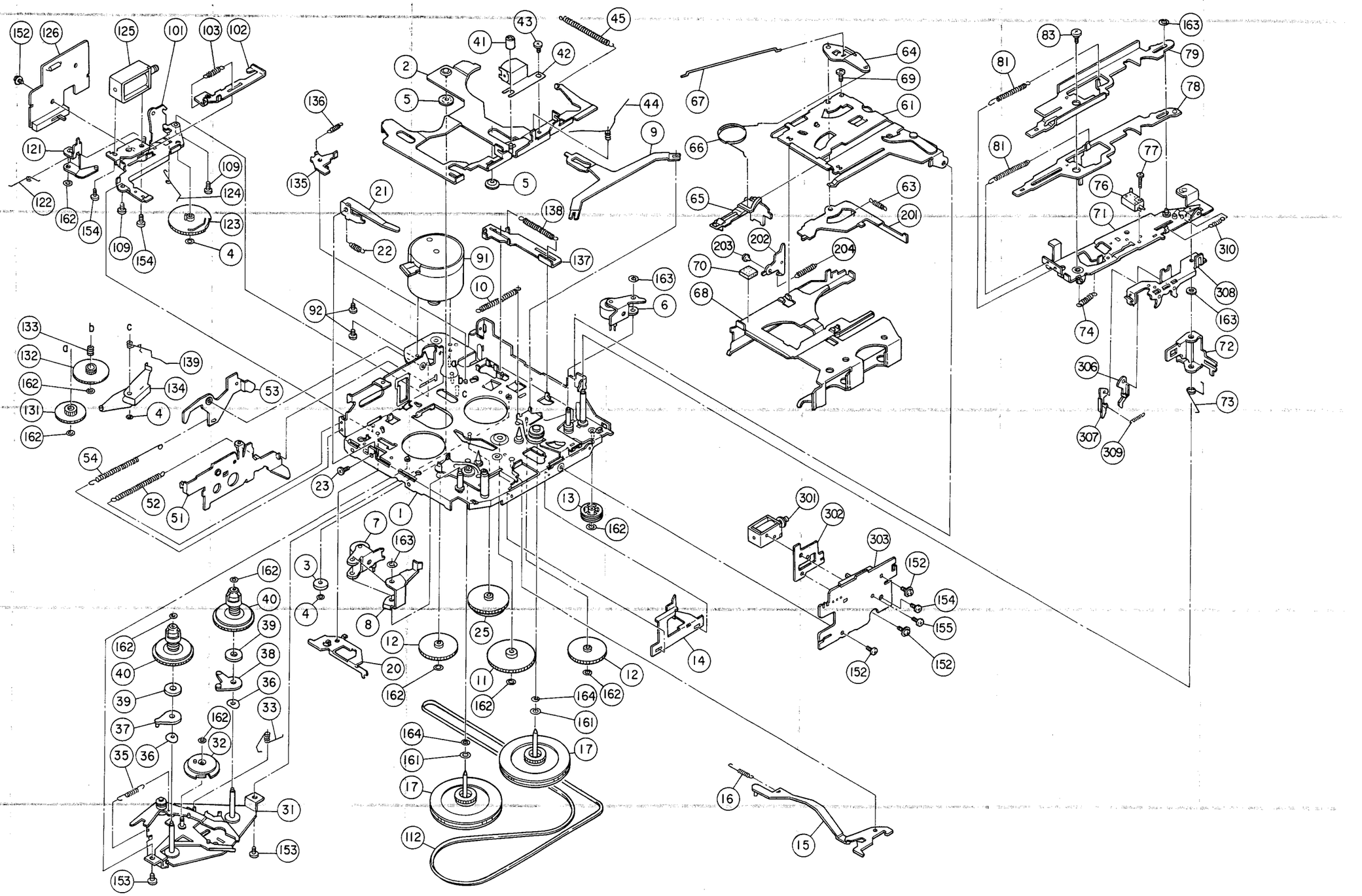
Ref. No.	Address	Part No.	Part Name	Remarks	Q'ty
1	7-D	940 0461 907	Connector Bracket		1
2	3-D	411 0859 101	Side Chassis (L) Ass'y		1
3	7-F	411 0897 303	Side Chassis (R)		1
4	4-F	940 0459 304	Front Chassis		1
⊙ 5	6-F	940 0461 509	Tuner Unit Ass'y	(PWB-1242)	1S
⊙ 6	6-E	940 0455 007	FM Front End		1
7		—	—		
8		—	—		
⊙ 9	6-F	940 0461 004	Main Unit Ass'y	(PWB-1253)	1S
⊙ 10		—	—		
⊙ 11	5-D	940 0461 101	Volume Unit Ass'y*	(PWB-1251)	1S
12	4-E	940 0456 802	Main Volume		1
⊙ 13	6-C	940 0461 208	Deck Unit Ass'y	(PWB-1254)	1S
⊙ 14	5-E	940 0461 101	Bass. Treble Unit Ass'y*	(PWB-1252)	1S
15	4-E	940 0456 815	Variable Resistor	Bass. Treble	2
16	2-E	940 0459 401	PWB Holder		1
⊙ 17	6-D	940 0461 305	Connector Unit Ass'y	(PWB-1244)	1S
⊙ 18	2-E	940 0461 402	Switch Unit Ass'y	(PWB-1243)	1S
19		—	—		
20	5-D	412 3039 103	Deck Bracket		1
⊙ 21	4-G	940 0457 500	LCD Ass'y		1
22	4-C	412 2986 008	Eject Lever		1
23	4-C	113 1329 002	Eject Button		1
24	5-D	113 1330 004	FF Button		1
25	5-D	113 1331 003	REW Button		1
⊙ 26	5-C	338 0137 001	Cassette Deck		1S
27	7-E	412 3038 007	Hanger Bracket		1
⊙ 28	3-F	940 0459 508	Front Panel Ass'y		1
├ 28-1		—	Front Panel		1
├ 28-2		—	LCD Window		1
├ 28-3		—	Cassette Lid		1
├ 28-4		143 0598 000	Knob Lens		1
├ 28-5		463 0605 017	Spring		1
└ 28-8		113 1359 001	Reset Button		1
29	2-G	112 0573 102	Band Knob		1
30	2-G	113 1182 003	Push Knob (D)	AF	1
31	2-G	113 1192 006	Push Knob (E)	TA	1
32	3-H	113 1182 029	Push Knob (D)	LOUD	1
33	3-H	113 1192 019	Push Knob (E)	B/LOC	1
34	3-H	940 0459 605	MTL/Mon. Button		1
35	2-G	113 1362 001	Seek Button (–)		1
36	2-H	113 1363 000	Seek Button (+)		1
37	2-H	112 0574 208	Push Knob (A)		1
38	2-H	113 1364 106	CD Function Button		1
39	2-H	113 1365 008	Preset Button	1/D–	1
40	2-H	113 1365 011	Preset Button	2/D+	1
41	2-H	113 1365 024	Preset Button	3/RND	1
42	2-H	113 1365 037	Preset Button	4	1
43	3-H	113 1365 040	Preset Button	5	1
44	3-H	113 1365 053	Preset Button	6	1
45	6-F	415 0544 001	Insulating Sheet		1
46	5-B	412 2840 102	Cover		2
47	2-G	112 0584 104	Fader Knob		1
48	2-G	112 0583 008	Volume Knob		1
49	2-G	463 0474 002	Knob Spring		1
50		—	—		
51	7-G	103 1200 418	Frame		1
52	8-F	106 0060 209	Handle Ass'y		1
53	8-C	940 0457 607	26P Conne Ass'y		1
54	5-A	940 0460 006	Name Plate		1
55	9-E	412 2685 202	Mount Sleeve Ass'y		1
56	4-F	112 0585 006	Tone Knob		2
57	7-E	940 0459 906	Caution Label		1
58	10-C	415 0453 008	RCA Cap		4
59	10-C	415 0533 009	DIN Jack Cap		1
60	4-G	940 0459 702	Cushion		3
61	4-C	415 0561 000	Insulating Sheet		1
62	4-F	940 0459 809	Black Label		1
63	5-A	513 1774 019	CE Label		1
64	5-B	940 0462 003	Boost Label		1
SCREW, NUT					
80	4-F	930 0854 012	M6 Nut		2
81		—	—		
82	4-E	930 0854 009	M9 Nut		1
83		—	—		
84	2-F	473 7506 019	Pan Screw	M2 × 6	2
85	7-D	471 3303 016	Bind Screw	M3 × 6	2
86	3-D	471 3301 018	Bind Screw	M3 × 4	6
87	8-C	473 7002 018	FT Bind Screw	M3 × 8	2
88	2-F	473 3302 017	Bind Screw	M3 × 5	2
89	5-C	473 1802 012	Bind Screw	M2.6 × 3	1
90	7-F	940 0441 927	S Tight Pan Screw	M2.6 × 4 (Black)	6
91	2-F	473 7005 073	FT Bind Screw	M3 × 5	14
ACCESSORIES (not including EXPLODED VIEW)					
⊙ 70		940 0442 104	Screw Kit		1S
├ 70-1		930 0236 038	Envelope	(70 × 100)	1
├ 70-2		475 1006 003	Washer ϕ5		2
├ 70-3		475 2005 003	Spring Washer × 5		2
├ 70-4		477 0289 005	Hex. Bolt 5 × 16		2
├ 70-5		477 0291 006	Tapping Screw	M5 × 20	1
├ 70-6		930 0227 021	Washer ϕ5		1
├ 70-7		477 0293 004	M5 Washer-Nut		1
└ 70-8		415 6010 007	M5 Nut		2
⊙ 71		—	—		
⊙ 72		—	Envelope Sub Ass'y		1S
├ 72-1		505 0061 007	Envelope	(170×250)	
├ 72-2		511 2153 002	Inst. Manual		1
└ 72-3		511 2160 008	Inst. Manual		1
⊙ 73		—	Envelope Sub Ass'y		1S
├ 73-1		930 0236 038	Envelope	(70 × 100)	1
└ 73-2		940 0460 103	Fuse 3A		1
74		940 0442 201	DENON Card		1
75		—	—		
76		—	—		
77		—	—		
PACKING (not including EXPLODED VIEW)					
100		—	Master Carton		1/4
101		940 0460 200	Ind. Carton		1
102		503 0804 307	Cushon Ass'y		2
103		930 0236 041	Envelope	(300 x 450)	1
104		—	—		
105		—	—		
106		—	—		

CASSETTE MECH. PART LIST

Ref. No.	Address	Part No.	Part Name	Remarks	Q'ty
1	3-D	947 0010 003	Main Chassis Ass'y		1
2	4-B	947 0000 204	Head Plate Ass'y		1
3	3-D	947 0000 301	Roller A		1
4	2-D	947 0000 408	E Ring		2
5	4-B	947 0000 505	Roller B		2
6	5-C	947 0000 602	Pinch Roller F Ass'y		1
7	3-D	947 0000 709	Pinch Roller R Ass'y		1
8	3-E	947 0000 806	FR Cam D		1
9	5-B	947 0000 903	Gear Connection Plate		1
10	4-C	947 0001 009	Spring		1
11	4-E	947 0001 106	Idler Gear		1
12	3-E	947 0001 203	Take Up Gear		2
13	4-D	947 0001 300	Idle Pulley		1
14	5-E	947 0001 407	Turn Lever D		1
15	6-F	947 0001 504	Turn Lever Ass'y		1
16	5-E	947 0001 601	Spring		1
17	4-E	947 0001 708	Fly Wheel		2
20	3-E	947 0001 805	Lock Plate A		1
21	3-B	947 0001 902	Lock Plate B		1
22	3-C	947 0002 008	Spring		1
23	3-D	947 0002 105	Screw (Pan)	M2×4.5	1
25	4-E	947 0002 202	Change Gear B		1
31	3-F	947 0002 307	Reel Plate Ass'y		1
32	3-E	947 0002 406	Change Gear A		1
33	3-E	947 0002 503	Spring		1
35	2-E	947 0010 100	Spring		1
36	2-E	947 0002 707	Spring		2
37	2-E	947 0002 804	Sensor Lever A		1
38	3-E	947 0002 901	Sensor Lever C		1
39	2-E	947 0003 007	Friction Felt B		2
40	2-E	947 0003 104	Reel Gear Ass'y		2
41	4-B	947 0003 201	Azimuth Nut		1
42	4-B	947 0003 308	Head		1
43	4-B	947 0003 405	Screw (Pan)	M2 × 4	1
44	5-B	947 0003 502	Spring		1
45	5-B	947 0010 113	Spring		1
51	2-D	947 0010 207	Eject Lever		1
52	2-D	947 0003 803	Spring		1
53	3-C	947 0003 900	Action Arm		1
54	2-D	947 0004 006	Spring		1
61	6-B	947 0004 103	Action Plate Ass'y		1
63	6-B	947 0004 200	Spring		1
64	6-B	947 0004 307	Turn Plate B		1
65	5-B	947 0004 404	Cassette Pusher		1
66	5-B	947 0004 501	Spring		1
67	5-B	947 0004 608	Coupling Bar		1
68	5-C	947 0004 705	Cassette Case		1
69	6-B	947 0004 802	ST Precision Screw	M2 × 4	1
70	5-C	947 0004 909	Cushion Sponge		1
71	7-B	947 0005 005	Side Plate Ass'y		1
72	8-C	947 0005 102	FR Cancell Plate		1
73	8-C	947 0005 209	Spring		1
74	2-F	947 0005 306	Spring		1
76	7-B	947 0010 304	Leaf Switch		1
77	7-B	947 0005 500	Precision Screw	M1.7 × 6	1
78	7-B	947 0005 607	FR Lever A		1
79	7-B	947 0005 704	FR Lever B		1
81	7-B	947 0005 801	Spring		2
82		—	—		
83	7-B	947 0005 908	Screw (SEMS)		1

Ref. No.	Address	Part No.	Part Name	Remarks	Q'ty
91	2-F	947 0010 401	Motor Ass'y		1
92	3-C	947 0006 101	Serrate Screw (Pan)	M2.6 × 3	2
101	2-B	947 0010 508	Sub Chassis Ass'y		1
102	3-B	947 0010 605	Actuater A		1
103	2-B	947 0006 402	Spring		1
109	2-C	947 0006 606	Screw (Pan)	M2 × 3	2
112	4-F	947 0006 703	Belt		1
121	2-B	947 0010 809	Lock Plate C		1
122	2-B	947 0010 906	Spring		1
123	3-C	947 0011 002	Setting Gear		1
124	3-B	947 0010 919	Spring		1
125	2-B	947 0011 109	Play Solenoid		1
126	2-B	947 0011 206	Switch P.W.B. B Ass'y		1
131	2-D	947 0011 303	Idle Gear A		1
132	2-C	947 0011 316	Idle Gear B		1
133	2-C	947 0011 400	Spring		1
134	2-C	947 0011 507	Moving Arm		1
135	3-B	947 0010 812	Lock Plate D		1
136	3-B	947 0010 126	Spring		1
137	4-C	947 0011 604	Moving Plate		1
138	4-B	947 0010 139	Spring		1
139	2-C	947 0011 701	Spring		1
152	2-B	947 0006 800	ST Serrate Screw (Pan)	M2 × 3	4
153	2-F	947 0006 619	Screw (Pan)	M2.6 × 3	2
154	2-C	947 0007 906	Precision Screw (Pan)	M2 × 2.2	3
155	6-E	947 0008 002	Precision Screw	M2 × 3	1
161	4-E	947 0006 907	PS Washer		2
162	2-C	947 0007 003	PS Washer (Cut)		9
163	3-D	947 0007 016	PS Washer (Cut)		4
164	4-E	947 0007 029	PS Washer (Cut)		2
201	6-C	947 0008 109	Turn Plate A		1
202	5-C	947 0008 206	Cassette Push Plate		1
203	5-C	947 0008 303	Pin		1
204	6-C	947 0008 400	Spring		1
301	6-D	947 0007 100	Solenoid Unit (APS)		1
302	6-D	947 0007 207	Support Plate		1
303	6-D	947 0010 702	Switch P.W.B. A Ass'y		1
306	7-C	947 0007 401	Change Lever F		1
307	7-D	947 0007 508	Change Lever R		1
308	8-C	947 0007 605	Actuater C		1
309	7-D	947 0007 702	Spring		1
310	8-C	947 0007 809	Spring		1
		947 0009 108	Slide Switch	P.W.B. B Ass'y	1
		947 0009 001	Slide Switch	P.W.B. A Ass'y	1

DISASSEMBLY OF CASSETTE MECHANISM



NOTE FOR PARTS LIST

- Part indicated with the mark " ⊙ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

• **Resistors**

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon RC : Fixed RS : Metallic film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse resistor F : Lead wire forming

Resistance
1 8 2 ⇨ 1800Ω = 1.8kΩ
- 2-digit effective number, decimal point indicated by R.
- Indicates number of zeros after effective number
- Units: Ω

• **Capacitors**

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolyte CA : Aluminum solid electrolyte CS : Tantalum electrolyte CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For charge and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

Capacity
2 R 2 ⇨ 2.2µF
- 1-digit effective number, decimal point indicated by R.
- 2-digit effective number, decimal point indicated by R.
- Units: µF, (for P, pF (µµF)
- When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

MAIN UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks
(RADIO SECTION)			
SEMICONDUCTOR GROUP			
TR251,252	273 0384 900	Transistor 2SC2412K(R)	Chip
TR253	269 0085 909	Transistor DTC144TK	Chip
TR254,255	269 0088 906	Transistor DTC114TK	Chip
TR256,257	273 0384 900	Transistor 2SC2412K(R)	Chip
TR351,352	269 0088 906	Transistor DTC114TK	Chip
D251	276 0401 002	Diode 1SS133	
RESISTOR GROUP			
R251	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R252	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R253	247 0008 957	Chip 3 Kohm, 1/10W	RM73B--302J
R254	247 0009 972	Chip 9.1 Kohm, 1/10W	RM73B--912J
R255	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R256	247 0013 984	Chip 470 Kohm, 1/10W	RM73B--474J
R257~259	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R260	247 0011 986	Chip 68 Kohm, 1/10W	RM73B--683J
R261	247 0012 969	Chip 150 Kohm, 1/10W	RM73B--154J
R351,352	247 0010 929	Chip 15 Kohm, 1/10W	RM73B--153J
R353,354	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R355~357	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J

Ref. No.	Part No.	Part Name	Remarks
CAPACITOR GROUP			
C251	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C252	940 0455 104	Electrolytic 4.7µF/35V (By Pole), (SRA)	CE04D1V4R7M
C253	254 4192 922	Electrolytic 47µF/10V (SRA)	CE04W1A470M
C254	257 0008 983	Chip Ceramic 0.001µF/50V	CK73B1H102K
C255	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C256	257 0013 907	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C257	257 0014 935	Chip Ceramic 0.1µF/25V	CK73F1E104Z
C351,352	254 4195 916	Electrolyutic 4.7µF/35V (SRA)	CE04W1V4R7M
C353	254 4196 009	Electrolytic 0.1µF/50V (SRE)	CE04W1HR10M
OTHER PARTS			**Q'ty**
	940 0455 007	FM/AM Module	1
	399 0039 007	DSP301N Surge Absorber	1
(DOLBY (B) CIRCUIT SECTION)			
SEMICONDUCTOR GROUP			
IC501	262 1340 901	IC CXA1101M	

Ref. No.	Part No.	Part Name	Remarks
RESISTOR GROUP			
R501	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R502	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J
R503	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R504	247 0010 945	Chip 18 Kohm, 1/10W	RM73B--183J
R505,506	247 0009 901	Chip 4.7 Kohm, 1/10W	RM73B--472J
R507	247 0010 945	Chip 18 Kohm, 1/10W	RM73B--183J
R508	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R509	247 0011 931	Chip 43 Kohm, 1/10W	RM73B--433J
R510	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J
R511	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R512	247 0011 902	Chip 33 Kohm, 1/10W	RM73B--333J
CAPACITOR GROUP			
C501	257 0009 953	Chip ceramic 3900PF/50V	CK73B1H392K
C502	254 4305 968	Electrolytic 1µF/50V (SRE)	CE04W1H010M
C503	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C504	254 4305 968	Electrolytic 1µF/50V (SRE)	CE04W1H010M
C505	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C506	254 4300 947	Electrolytic 47µF/6.3V (SRE)	CE04W0J470M
C507,508	254 4305 955	Electrolytic 0.68µF/50V(SRE)	CE04W1HR68M
C509	254 4299 906	Electrolytic 10µF/16V (SRE)	CE04W1C100M
C510,511	254 4305 968	Electrolytic 1µF/50V (SRE)	CE04W1H010M
C512	257 0009 953	Chip Ceramic 3900PF/50V	CK73B1H392K
(CD INPUT CIRCUIT SECTION)			
SEMICONDUCTOR GROUP			
IC451	263 0703 005	IC M5280P	
RESISTOR GROUP			
R451,452	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R453,454	247 0011 928	Chip 39 Kohm, 1/10W	RM73B--393J
CAPACITOR GROUP			
C451	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C452	254 4195 916	Electrolytic 4.7µF/35V (SRA)	CE04W1V4R7M
C454	254 4302 974	Electrolytic 100µF/10V (SRE)	CE04W1A101M
C455,456	254 4304 927	Electrolytic 4.7µF/35V (SRE)	CE04W1V4R7M
C457	254 4195 916	Electrolytic 4.7µF/35V (SRA)	CE04W1V4R7M
(ANALOG SWITCH SECTION)			
SEMICONDUCTOR GROUP			
IC551	940 0455 201	BU4053BF	
TR551	269 0082 902	Transistor DTC114EK	Chip

Ref. No.	Part No.	Part Name	Remarks
REISISTOR GROUP			
R551	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R552~555	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R556,557	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
CAPACITOR GROUP			
C551,552	254 4304 927	Electrolytic 4.7µF/35V (SRE)	CE04W1V4R7M
(LEVEL AMP CIRCUIT SECTION)			
SEMICONDUCTOR GROUP			
IC552	263 0615 902	IC BA15218F	
RESISTOR GROUP			
R558	247 0010 974	Chip 24 Kohm, 1/10W	RM73B--243J
R559	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R560,561	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R562	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R563	247 0010 974	Chip 24 Kohm, 1/10W	RM73B--243J
R564	241 2396 960	Carbon Film 150 ohm, 1/4W	RD14B2E151J
CAPACITOR GROUP			
C553,554	254 4302 932	Electrolytic 22µF/10V (SRE)	CE04W1A220M
C555,556	254 4195 916	Electrolytic 4.7µF/35V (SRA)	CE04W1V4R7M
(BASS, TREBLE AMP SECTION)			
SEMICONDUCTOR GROUP			
IC553	263 0615 902	IC BA15218F	
D551	940 0342 000	Zener Diode MTZ4.3B	4.3V
RESISTOR GROUP			
R578,579	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R580,581	247 0008 928	Chip 2.2 Kohm, 1/10W	RM73B--222J
CAPACITOR GROUP			
C565,566	257 0004 945	Chip Ceramic 82PF/50V	CC73SL1H820J
C567	254 4300 963	Electrolytic 100µF/6.3V (SRE)	CE04W0J101M
(LOUDNESS SECTION; LO only)			
SEMICONDUCTOR GROUP			
TR552,553	269 0088 906	Transistor DTC114TK	Chip
TR701	269 0083 901	Transistor DTA114EK	Chip

Ref. No.	Part No.	Part Name	Remarks
		RESISTOR GROUP	
R582,583	247 0008 986	Chip 3,9 Kohm, 1/10W	RM73B--392J
R763	247 0011 902	Chip 33 Kohm, 1/10W	RM73B--333J
		CAPACITOR GROUP	
C568,569	257 0013 910	Chip Ceramic 0.068μF/50V	CK73F1H683Z
C702	254 4300 934	Electrolytic 22μF/6.3V (SRE)	CE04W0J220M
(LINEOUT 4CH SECTION)			
		SEMICONDUCTOR GROUP	
IC651,652	263 0615 902	IC BA15218F	
TR651~654	269 0103 904	Transistor DTC314TK	Chip
D651	940 0342 000	Zener Diode MTZ4.3B	4.3V
		RESISTOR GROUP	
R651	247 0011 928	Chip 39 Kohm, 1/10W	RM73B--393J
R652	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R653,654	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R655	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R656	247 0011 928	Chip 39 Kohm, 1/10W	RM73B--393J
R657	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J
R658	247 0011 928	Chip 39 Kohm, 1/10W	RM73B--393J
R659	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R661,662	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--233J
R663	247 0009 943	Chip 6.8 Kohm, 1/10W	RM73B--682J
R664	247 0011 928	Chip 39 Kohm, 1/10W	RM73B--393J
R665~668	247 0006 962	Chip 470 ohm, 1/10W	RM73B--471J
R669~672	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R673	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J
		CAPACITOR GROUP	
C651	254 4300 963	Electrolytic 100μF/6.3V (SRE)	CE04W0J101M
C652~655	254 4302 932	Electrolytic 22μF/10V (SRE)	CE04W1A220M
(PLL SECTION)			
		SEMICONDUCTOR GROUP	
IC704	940 0455 308	IC TC9216P	
IC705	263 0616 901	IC TC4S66F	
TR707,708	273 0384 900	Transistor 2SC2412K(R)	Chip
TR710	269 0088 906	Transistor DTC114TK	Chip

Ref. No.	Part No.	Part Name	Remarks
		RESISTOR GROUP	
R724	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R726~728	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R730,731	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R732	247 0005 921	Chip 120 ohm, 1/10W	RM73B--121J
R733	247 0006 988	Chip 560 ohm, 1/10W	RM73B--561J
R734	247 0005 901	Chip 100 ohm, 1/10W	RM73B--101J
R735	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R736	247 0008 944	Chip 2.7 Kohm, 1/10W	RM73B--272J
R737	247 0008 928	Chip 22 Kohm, 1/10W	RM73B--223J
R765	247 0009 901	Chip 4.7 Kohm, 1/10W	RM73B--472J
R771	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
		CAPACITOR GROUP	
C704	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C705,706	940 0458 127	Chip Ceramic 27PF/50V (Temp)	CC73CH1H270J
C707	254 4192 922	Electrolytic 47μF/10V (SRA)	CE04W1A470M
C708	257 0010 900	Chip Ceramic 0.01μF/50V	CK73B1H103K
C709	257 0013 907	Chip Ceramic 0.047μF/50V	CK73F1H473Z
C710	940 0455 609	Electrolytic 2.2μF/35V (By pole)	CE04D1V2R2MBP
C711	257 0010 955	Chip Ceramic 0.027μF/50V	CK73B1H273K
C712	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K
		OTHER PARTS	**Q'ty**
L701	940 0455 502	Inductor 0.22μH	1
X701	940 0455 405	X'tal 7.2 MHz	1
(CONTROL RECT. SECTION)			
		SEMICONDUCTOR GROUP	
IC701	940 0455 706	IC μPD75516GF-242-3B9	
IC702	262 1410 006	IC μPD6252C	
IC703	940 0455 803	IC M62006XL	
TR608,609	269 0066 902	Transistor DTC323TK	Chip
TR702	269 0083 901	Transistor DTA114EK	Chip
TR703	269 0055 900	Transistor DTA144EK	Chip
TR704	269 0086 908	Transistor DTA114TK	Chip
TR705	269 0110 900	Transistor DTA125TK	Chip
TR706,707	269 0088 906	Transistor DTC114TK	Chip
TR711	269 0088 906	Transistor DTC114TK	Chip
TR712	269 0083 901	Transistor DTA114EK	Chip
TR714,715	269 0082 902	Transistor DTC114EK	Chip
TR801	272 0099 904	Transistor 2SB1237(R)	
TR802	269 0047 905	Transistor DTA143EK	Chip
TR803,804	269 0082 902	Transistor DTC114EK	Chip
TR805	272 0099 904	Transistor 2SB1237(R)	
TR806	273 0384 900	Transistor 2SC2412K(R)	Chip
TR809	940 0445 101	Transistor 2SD2037(E)	

Ref. No.	Part No.	Part Name	Remarks
TR810	269 0047 905	Transistor DTA143EK	Chip
TR811	269 0088 906	Transistor DTC114TK	Chip
TR812,813	940 0247 011	Transistor 2SA1036K(R)	Chip
TR814,815	269 0088 906	Transistor DTC114TK	Chip
TR816	274 0146 905	Transistor 2SD1858(R)	
D701~714	276 0401 002	Diode 1SS133	
D715	940 0456 103	Zener Diode MTZ3.3B	3.3V
D716,717	276 0401 022	Diode 1SS133	
D801,802	276 0401 002	Diode 1SS133	
D803,804	276 0440 908	Zener Diode MTZ10A	10V
D805	276 0401 002	Diode 1SS133	
D806	940 0342 013	Zener Diode MTZ6.2B	6.2V
D807,808	276 0401 002	Diode 1SS133	
D812	276 0552 906	Diode 1SR-139-200	
D818	940 0456 200	Zener Diode MTZ7.5C	7.5V
D819	940 0456 006	Zener Diode MTZ5.1C	5.1V
RESISTOR GROUP			
R657	241 2397 079	Carbon Film 470 ohm, 1/4W	RD14B2E471J
R701	247 0010 987	Chip 27 Kohm, 1/10W	RM73B--273J
R702~705	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R706	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R707,708	247 0005 905	Chip 100 ohm, 1/10W	RM73B--101J
R709	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J
R710~712	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R713	247 0010 958	Chip 20 Kohm, 1/10W	RM73B--203J
R714	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R715,716	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R717	241 2407 008	Carbon Film 1 ohm, 1/4W	RD14B2E010J
R718~720	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R720	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R721	247 0013 900	Chip 220 Kohm, 1/10W	RM73B--224J
R722,723	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R724	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R725	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R738	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R739~742	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R743~745	247 0010 961	Cchip 22 Kohm, 1/10W	RM73B-223J
R746	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R747	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R748~751	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R752	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J
R753,754	247 0009 901	Chip 4.7 Kohm, 1/10W	RM73B--472J
R755~757	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R758	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R759~762	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R764	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R766	247 0009 901	Chip 4.7 Kohm, 1/10W	RM73B--472J
R767	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R768,769	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R770	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R772	244 0019 002	Metal Oxide 15 ohm, 1W	RS14B3A150JNB
R801	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J
R802	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J
R803	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J

Ref. No.	Part No.	Part Name	Remarks
R804,805	241 2397 066	Carbon Film 390 ohm, 1/4W	RD14B2E391J
R806	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R807~810	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R811	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J
R815,816	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
RT701	940 0455 900	Semi Fixed Resistor 100 Kohm	
RA701	940 0456 307	Resistor Array 4.7 Kohm × 5	
CAPACITOR GROUP			
C701	257 0004 961	Chip Ceramic 100PF/50V	CC73SL1H101J
C703	254 4299 906	Electrolytic 10μF/16V (SRE)	CE04W1C100M
C713	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C714,715	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C716	257 0004 961	Chip Ceramic 100PF/50V	CK73SL1H101J
C717,718	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C719	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C720	253 3637 003	Ceramic 270PF	CC45SL1H271J
C802	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C803	254 4193 947	Electrolytic 100μF/16V (SRA)	CE04W1C101M
C804	254 4192 935	Electrolytic 100μF/10V (SRA)	CE04W1A101M
C805	254 4299 906	Electrolytic 10μF/16V (SRE)	CE04W1C100M
C806	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C807	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K
C808	254 4193 905	Electrolytic 10μF/16V(SRA)	CE04W1C100M
C809	254 4192 935	Electrolytic 100μF/10V (SRA)	CE04W1A101M
C810,811	254 4302 974	Electrolytic 100μF/10V (SRE)	CE04W1A101M
C815	253 9031 904	Ceramic 0.047μF/25V	CK45=1E473Z
C816~819	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z

OTHER PARTS				Q'ty
L801	940 0455 515	Inductor 10μH		1
CR701	399 0107 007	Ceramic Vibrator CST4.19MGW		1
(OTHER SECTION)				
GENERAL				
	940 0456 404	5P Connector Base		1
	940 0443 530	7P Connector Base		1
	205 0612 019	22P Connector Base		1
	205 0612 006	26P Connector Base		1
	940 0456 501	2P Connector Ass'y		1
	203 0355 059	5P KR Con Base (L)		1
	205 0355 075	7P KR Con Base (L)		2
	205 0343 029	2P Con Base (KR-PH)		1
	—	P.W. Board	PWB-1253	(1)

TUNER UNIT ASS'Y PARTS LIST

* Part is used as substitute to S/No. 0129200001 ~ 0129201000.
** Part is used as substitute to S/No. 1019201001 and after.

Ref. No.	Part No.	Part Name	Remarks
(FM FRONT, IF SECTION)			
SEMICONDUCTOR GROUP			
IC201	263 0193 000	IC LA1140	
TR201	940 0457 704	FET 2SK302Y	Chip FET
TR202	287 2992 028	Transistor FMG9	Chip
TR203	269 0088 906	Transistor DTC114TK	Chip
D201	276 0560 901	Diode DAN 202K	Chip
D202	276 0443 002	LED LTZ-MR15	LED
D203	276 0560 901	Diode DAN202K	Chip
TH201	279 0029 001	Thermistor NTH5D104KA	
RESISTOR GROUP			
R201	247 0010 945	Chip 18 Kohm, 1/10W	RM73B--183J
R203,204	247 0006 962	Chip 470 ohm, 1/10W	RM73B--471J
R205	247 0005 989	Chip 220 ohm, 1/10W	RM73B--221J
R209	247 0010 974	Chip 24 Kohm, 1/10W	RM73B--243J
R210	247 0006 920	Chip 330 ohm, 1/10W	RM73B--331J
R211,212	247 0010 929	Chip 15 Kohm, 1/10W	RM73B--153J
R213	247 0010 903	Chip 12 Kohm, 1/10W	RM73B--123J
R214	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R215	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R217	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R218	247 0001 983	Chip 4.7 ohm, 1/10W	RM73B--4R7J
R219	247 0012 901	Chip 82 Kohm, 1/10W	RM73B--823J
RT201,202	940 0458 004	Semi Fixed Resistor 47 Kohm	
RT204	940 0458 046	Semi Fixed Resistor 150 Kohm	
CAPACITOR GROUP			
C101	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C202,203	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K
C204	254 4305 065	Electrolytic 1μF/50V	CE04W1H010M
C205	257 0010 900	Chip Ceramic 0.01μF/50V	CK73B1H103K
C206	940 0458 101	Chip Ceramic 0.047μF/50V	CK73F1H473Z
C207	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C208	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K
C209	254 4305 065	Electrolytic 1μF/50V	CE04W1H010M
C210	257 0003 946	Chip Ceramic 33PF/50V	CC73SL1H330J
C211	254 4302 055	Electrolytic 47μF/10V	CE04W1A470M
C212	940 0458 114	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C213	940 0458 101	Chip Ceramic 0.047μF/50V	CK73F1H473Z
C214	254 4305 942	Electrolytic 0.47μF/50V	CE04W1HR47M
C215	254 4305 007	Electrolytic 0.1μF/50V	CE04W1HR10M
C216,217	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K
OTHER GROUP			**Q'ty**
CF201,202	261 0097 003	FM Ceramic Filter	2
		SFE10.7MS3GH-A	

Ref. No.	Part No.	Part Name	Remarks	Q'ty
L101	940 0457 801	Inductor	10μH	1
T201 *	940 0457 908	Det. Coil		1
**	231 2089 005	Det. Coil		1
	940 0455 007	FM Front End		1
(N.C MPX SECTION)				
SEMICONDUCTOR GROUP				
IC301	262 1129 009	IC STK3400A		
D301	940 0458 208	Diode 1SS1588		
RESISTOR GRUPE				
R301	247 0009 914	Chip 5.1 Kohm, 1/10W	RM73B--512J	
R302	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J	
R303	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J	
R304	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J	
R305	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J	
R306	247 0009 969	Chip 8.2 Kohm, 1/10W	RM73B--822J	
R307	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J	
R308	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J	
RT301	940 0458 004	Semi Fixed Resistor 47 Kohm		
RT302	940 0458 020	Semi Fixed Resistor 2.2 Kohm		
CAPACITOR GROUP				
C301	254 4305 023	Electrolytic 0.22μF/50V	CE04W1HR22M	
C302,303	254 4305 065	Electrolytic 1μF/50V	CE04W1H010M	
C304	257 0010 900	Chip Ceramic 0.01μF/50V	CK73B1H103K	
C305	257 0009 940	Chip Ceramic 3300PF/50V	CK73B1H332K	
C306	257 0011 970	Chip Ceramic 0.033μF/25V	CK73B1E333K	
C307	254 4302 055	Electrolytic 47μF/10V	CE04W1A470M	
C308	254 4302 039	Electrolytic 22μF/10V	CE04W1A220M	
C309	254 4303 012	Electrolytic 4.7μF/25V	CE04W1E4R7M	
C310	940 0458 008	Electrolytic 0.1μF/50V (By pole)	CE04D1H0R1MBP	
C311	940 0458 318	Electrolytic 4.7μF/25V (By pole)	CE04D1E4R7MBP	
C312	257 0009 911	Chip Ceramic 1800PF/50V	CK73B1H182K	
C313	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K	
OTHER GROUP				
CF301	261 0104 006	Ceramic Vibrator	CSB456F15	
(MW, LW SECTION)				
SEMICONDUCTOR GROUP				
IC401	940 0458 402	IC μPC1344GT		
TR401	940 0458 509	Transistor 2SK932-23	Chip FET	
TR402,403	940 0458 606	Transistor 2SC2412KLN	Chip (Low Noise)	

Ref. No.	Part No.	Part Name	Remarks
D401	940 0461 606	Diode 1SV172	Chip
D402	940 0461 703	Diode DA106K	Chip
D403	940 0461 619	Varicap 1SV225	Chip
		RESISTOR GROUP	
R401	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R402	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J
R403,404	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R405	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R406	247 0008 928	Chip 2.2 Kohm, 1/10W	RM73B--222J
R407	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R408	247 0008 944	Chip 2.7 Kohm, 1/10W	RM73B--272J
R409	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R410,411	247 0004 922	Chip 47 ohm, 1/10W	RM73B--470J
R412	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R413	247 0006 988	Chip 560 ohm, 1/10W	RM73B--561J
R414	247 0003 949	Chip 22 ohm, 1/10W	RM73B--220J
R415	247 0014 967	Chip 1 Mohm, 1/10W	RM73B--105J
R416	247 0003 907	Chip 15 ohm, 1/10W	RM73B--150J
J1~10, 19,20	247 0018 905	Chip 0 ohm, 1/10W	RM73B--0R0
J11~18,21	247 1018 904	Chip 0 ohm, 1/8W	RM73B2B0R0
RT401	940 0458 033	Semi Fixed Resistor 10 Kohm	
		CAPACITOR GROUP	
C401	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K
C402	257 0003 988	Chip Ceramic 47PF/50V	CC73SL1H470J
C403	257 0001 977	Chip Ceramic 5PF/50V	CC73SL1H5R0C
C404	257 0005 902	Chip Ceramic 150PF/50V	CC73SL1H151J
C405	257 0003 988	Chip Ceramic 47PF/50V	CC73SL1H470J
C406~408	257 0010 942	Chjip Ceramic 0.022µF/50V	CK73B1H223K
C409	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C410	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C411	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C412	257 1011 908	Chip Ceramic 0.01µF/50V	CK73B1H103K
C413	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C414	254 4302 039	Electrolytic 22µF/10V	CE04W1A220M
C415	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C416	254 4302 055	Electrolytic 47µF/10V	CE04W1A470M
C417	257 0010 900	Chip Ceramic 0.01µF/50V	CK73B1H103K
C418	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C419	940 0459 003	Chip Ceramic 20PF/50V (Temp.)	CC73CH1H200J
C420	940 0459 010	Chip Ceramic 22PF/50V (Temp.)	CC73CH1H220J
C421	254 4305 081	Electrolytic 2.2µF/50V	CE04W1H2R2M
C422	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C423	257 1011 982	Chip Ceramic 0.047µF/50V	CK73B1H473K
C424	940 0459 023	Chip Ceramic 270PF/50V (Temp.)	CC73CH1H271J
C425	257 0010 942	Chip Ceramic 0.022µF/50V	CK73B1H223K
C426	940 0458 101	Chip Ceramic 0.047µF/50V	CK73F1H473Z
C427	257 1011 908	Chip Ceramic 0.01µF/50V	CK73B1H103K

Ref. No.	Part No.	Part Name	Remarks	Q'ty
		OTHER GROUP		
CF401	940 0458 703	FM C. Filter	SFE10.7MJ-A	1
CF402	930 0293 000	AM C. Filter	SFP 450H	1
X401	940 0458 800	X'tal	10.26MHz	1
L401	940 0457 827	Inductor	22µH	1
L402	940 0458 907	Ant. Coil		1
L403,404	940 0457 827	Inductor	22µH	2
L405	940 0458 910	Low Pass Filter	LPF	1
L406	940 0457 843	Inductor	1mH	1
L407	940 0457 814	Inductor	3.3µH	1
IF401	940 0458 923	IFT		1
IF402	940 0458 936	IFT		1
IF403	940 0458 949	IFT		1
J22	—	Jumper Wire		1
		(OTHER SECTION)		
CN1,2	940 0457 429	5P Pin Header		2
CN3	940 0457 432	6P Pin Header		1
CN4	940 0457 445	7P Pin Header		1
	—	Shield Case		1
	—	Bottom Shield Case		1
	940 0459 100	Radiator Plate		1
	940 0459 207	Label		1
	—	(P.W. Board)	PWB-1242	(1)

RDS UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks
(FILTER, BATTERY SECTION)			
SEMICONDUCTOR GROUP			
IC901	940 0337 002	IC LA6458S	
D901	276 0401 002	Diode 1SS133	
RESISTOR GROUP			
R903	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R904	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R905	247 0012 927	Chip 100 Kohm, 1/10W	RM73B--104J
R906	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R907	247 0008 960	Chip 3.3 Kohm, 1/10W	RM73B--332J
R908	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
R921	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
CAPACITOR GROUP			
C902-905	257 0010 900	Chip Ceramic 0.01μF/50V	CK73B1H103K
C906	254 4193 002	Electrolytic 10μF/10V (SRA)	CE04W1A100M
OTHER PARTS			**Q'ty**
T901	940 0456 608	Coil	1
B901	940 0445 509	Lithium Battery	3V 1
(RDS DECODER SECTION)			
SEMICONDUCTOR GROUP			
IC902	263 0612 002	IC LA2231M	
RESISTOR GROUP			
R909	247 0014 941	Chip 820 Kohm, 1/10W	RM73B--824J
R910	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J
R911,912	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
R913,914	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J
R915	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J
CAPACITOR GROUP			
C907	254 4192 906	Electrolytic 22μF/10V (SRA)	CE04W1A220M
C908	257 0009 940	Chip Ceramic 3300PF/50V	CK73B1H332K
C909	257 0008 983	Chip Ceramic 1000PF/50V	CK73B1H102K
C910	257 0009 940	Chip Ceramic 3300PF/50V	CK73B1H332K
C911	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C912	254 4195 916	Electrolytic 4.7μF/35V (SRA)	CE04W1V4R7M
C913	254 4192 906	Electrolytic 22μF/10V (SRA)	CE04W1A220M
C914	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K
C915	257 0011 967	Chip Ceramic 0.033μF/25V	CK73B1E333K
C916	257 0009 982	Chip Ceramic 6800PF/50V	CK73B1H682K
C917	257 0011 967	Chip Ceramic 0.033μF/25V	CK73B1E333K
C918	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z

Ref. No.	Part No.	Part Name	Remarks
OTHER PARTS			**Q'ty**
CF901	261 0104 006	C. Filter CSB456F15	1
(SYNCHRO, CORRECTION SECTION)			
SEMICONDUCTOR GROUP			
IC903	263 0614 000	IC LC7070M	
RESISTOR GROUP			
R916	247 0011 944	Chip 47 Kohm, 1/10W	RM73B--473J
J001	247 0018 905	Chip Jumper 0 ohm, 1/10W	RM73B--0R0K
CAPACITOR GROUP			
C919	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
C920,921	257 0003 933	Chip Ceramic 33PF/50V	CC73CH1H330J
C922	257 0014 935	Chip Ceramic 0.1μF/25V	CK73F1E104Z
OTHER PARTS			**Q'ty**
CF902	399 0041 008	Ceramic Vibrator	KBR-4.0MSA 1
	940 0456 417	5P Connector	1
	940 0443 514	7P Connector	1
	—	P.W. Board	(PWB-1250) (1)

VOLUME UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	Q'ty
SEMICONDUCTOR GROUP				
TR554,555	269 0103 904	Transistor DTC314TK	Chip	
TR556	269 0066 902	Transistor DTC323TK	Chip	
RESISTOR GROUP				**Q'ty**
R584	247 1007 944	Chip 1 Kohm, 1/8W	RM73B2B102J	
R585	247 0007 945	Chip 1 Kohm, 1/10W	RM73B--102J	
R586	247 1009 900	Chip 4.7 Kohm, 1/8W	RM73B2B472J	
R587	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J	
R589	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J	
R590	247 1009 926	Chip 5.6 Kohm, 1/8W	RM73B2B562J	
R591	247 0009 927	Chip 5.6 Kohm, 1/10W	RM73B--562J	
R592~595	247 0014 967	Chip 1M ohm, 1/10W	RM73B--105J	
R596,597	241 2402 058	Carbon Film 47 Kohm, 1/4W	RD14B2E473J	
	247 1018 904	Chip 0 ohm, 1/8W	RM73B2B0R0K	7
RT551	211 6070 029	Semi Fixed Resistor 10 Kohm		1
	940 0456 802	Main Volume		1
CAPACITOR GROUP				
C570,571	254 4192 906	Electrolytic 22μF/10V (SRA)	CE04W1A220M	
C572	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K	
C573~576	254 4196 957	Electrolytic 2.2μF/50V (SRA)	CE04W1A2R2M	
OTHER PARTS				**Q'ty**
	940 0456 420	26P Connector		1
	—	Jumper Wire		3
	—	(P.W. Board)	(PWB-1251)	(1)

BASS, TREBLE UNIT ASS'Y PART LIST

Ref. No.	Part No	Part Name	Remarks	Q'ty
RESISTOR GROUP				
R565	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J	
R567	247 0009 985	Chip 10 Kohm, 1/10W	RM73B--103J	
R568	241 2401 075	Carbon Film, 22 Kohm,1/4W	RD14B2E223J	
R569	247 0009 956	Chip 7.5 Kohm, 1/10W	RM73B--752J	
R570	247 0007 932	Chip 910 ohm, 1/10W	RM73B--911J	
R571	247 0009 956	Chip 7.5 Kohm, 1/10W	RM73B--752J	
R572	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J	
R573	247 1009 984	Chip 10 Kohm, 1/8W	RM73B2B103J	
R574	247 0010 961	Chip 22 Kohm, 1/10W	RM73B--223J	
R575	247 0009 956	Chip 7.5 Kohm, 1/10W	RM73B--752J	
R576	247 0007 932	Chip 910 ohm, 1/10W	RM73B--911J	
R577	247 0009 956	Chip 7.5 Kohm, 1/10W	RM73B--752J	
J	247 1018 904	Chip 0 ohm, 1/8W	RM732B0R0K	
	940 0456 815	Bass, Treble Volume		2
CAPACITOR GROUP				
C557,558	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K	
C559	257 0008 909	Chip Ceramic 220PF/50V	CK73SL1H221J	
C560	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K	
C561,562	257 0010 942	Chip Ceramic 0.022μF/50V	CK73B1H223K	
C563	257 1009 907	Chip Ceramic 220PF/50V	CK73SL1H221J	
C564	257 0009 924	Chip Ceramic 2200PF/50V	CK73B1H222K	
OTHER PARTS				**Q'ty**
	940 0456 514	6P Connector Ass'y		1
J001,002	—	Jumper Wire		2
	—	P.W. Board	(PW-1252)	(1)

DECK UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks
(EQUALIZER SECTION)			
SEMICONDUCTOR GROUP			
IC601	263 0434 002	IC LA3161	
RESISTOR GROUP			
R601	241 2395 042	Carbon Film 47 ohm, 1/4W	RD14B2E470J
R602	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J
R603	241 2400 018	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J
R604	241 2399 035	Carbon Film 2.2 Kohm, 1/4W	RD14B2E222J
R605	241 2400 018	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J
R606	241 2397 066	Carbon Film 390 ohm, 1/4W	RD14B2E391J
R607	241 2399 035	Carbon Film 2.2 Kohm, 1/4W	RD14B2E222J
R608	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J
R609	241 2395 042	Carbon Film 47 ohm, 1/4W	RD14B2E470J
R626,627	241 2403 031	Carbon Film 100 Kohm, 1/4W	RD14B2E104J
RT601,602	940 0455 926	Semi Fixed Resistor 47 Kohm	
CAPACITOR GROUP			
C601,602	253 1108 903	Ceramic 470PF/50V	CK45B1H471J
C603	254 4196 944	Electrolytic 1μF/50V (SRA)	CE04W1H010M
C604	254 4213 937	Electrolytic 100μF/6.3V	CE04W0J101M
C605	940 0456 909	Ceramic 0.039μF/50V	CK45B1H393J
C606,607	254 4196 915	Electrolytic 0.22μF/50V (SRA)	CE04W1HR22M
C609	940 0456 909	Ceramic 0.039μF/50V	CK45B1H393J
C610	254 4213 937	Electrolytic 100μF/6.3V (SRA)	CE04W0J101M
C611	254 4196 944	Electrolytic 1μF/50V (SRA)	CE04W1H010M
C607	254 4254 051	Electrolytic 220μF/16V (SME)	CE04W1C221M
C621,622	253 3631 009	Ceramic 150PF/50V	CC45SL1H151J
(SENSOR, METAL SECTION)			
SEMICONDUCTOR GROUP			
IC602	263 0702 006	IC AN6262N	
TR601,602	940 0450 918	Transistor DTC144TL	Chip
RESISTOR GROUP			
R610	241 2400 018	Carbon Film 4.7 Kohm, 1/4W	RD14B2E472J
R611	940 0457 102	Carbon Film 4.7 Kohm, 1/2W	RD14B2H472J
R612	241 2404 043	Carbon Film 300 Kohm, 1/4W	RD14B2E304J
R613	241 2397 008	Carbon Film 220 ohm, 1/4W	RD14B2E221J
R614	241 2400 092	Carbon Film 10 Kohm, 1/4W	RD14B2E103J
R615,616	241 2399 051	Carbon Film 2.7 Kohm, 1/4W	RD14B2E272J
R617,618	241 2405 071	Carbon Film 1 Mohm, 1/4W	RD14B2E105J
R619	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J

Ref. No.	Part No.	Part Name	Remarks
CAPACITOR GROUP			
C612,613	254 4196 902	Electrolytic 0.1μF/50V (SRA)	CE04W1H0R1M
C614	253 4269 001	Ceramic 10PF/50V	CK45B1H100D
C615	254 4193 905	Electrolytic 10μF/16V (SRA)	CE04W1C100M
C616	254 4195 916	Electrolytic 4.7μF/35V (SRA)	CE04W1V4R7M
C617	940 0457 209	Metalized 0.22μF/50V	CF93F1A224J
C618,619	940 0456 912	Ceramic 0.022μF/50V	CK45F1H223Z
C620	254 4213 924	Electrolytic 47μF/6.3V (SRA)	CE04W0J470M
(RECT, MOTOR STOP SECTION)			
SEMICONDUCTOR GROUP			
TR603	272 0099 904	Transistor 2SB1237(R)	
TR604	940 0421 400	Transistor DTC114TL	
TR605,606	272 0099 904	Transistor 2SB1237(R)	
TR607	940 0457 005	Transistor DTC114EL	
D601	276 0552 906	Diode 1SR-139-200	
D602	276 0401 002	Diode 1SS133	
RESISTOR GROUP			
R620	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J
R621	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J
R622	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J
R623,624	241 2398 094	Carbon Film 1.5 Kohm, 1/4W	RD14B2E152J
R625	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J

OTHER PARTS			Q'ty
	940 0456 433	22P Connector	1
	205 0355 033	3P KR Con Base (L)	1
	205 0480 005	10P KR Con Base (L)	1
	—	Jumper Wire P = 5	5
	—	Jumper Wire P = 7.5	5
	—	Jumper Wire P = 10	3
	—	Jumper Wire P = 15	4
	—	P.W. Board (PW-1254)	(1)

CONNECTOR UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks
		SEMICONDUCTOR GROUP	
D809	276 0401 002	Diode 1SS133	
D810	940 0456 116	Zener Diode MTZ3.3A	3.3V
D811	276 0552 906	Diode 1SR-139-200	
D813–817	940 0456 200	Zener Diode MTZ7.5C	7.5V
		RESISTOR GROUP	
R812–814	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J
R817,818	241 2398 052	Carbon Film 1 Kohm, 1/4W	RD14B2E102J
		CAPACITOR GROUP	
C812–814	253 9030 086	Ceramic 0.022μF/25V	CK45=1E223K
		OTHER GROUP	**Q'ty**
	940 0461 800	26P Conn (S)	1
	940 0457 403	8P Lug Plate	1
	940 0457 416	13P Lug Plate	1
	—	Jumper Wire P = 5	2
	—	Jumper Wire P = 15	1
	—	P.W. Board	(PW-1244) (1)

SWITCH UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	
		OTHER GROUP		**Q'ty**
	940 0423 806	Tact Switch		16
	940 0423 819	Tact Switch		1
	930 0482 002	Lamp Ass'y		5
	940 0456 527	5P Connector Ass'y		1
	940 0456 530	7P Connector Ass'y		1
	—	Jumper Wire P = 7.5		3
	—	Jumper Wire P = 10		4
	—	Jumper Wire P = 12.5		1
	—	Jumper Wire P = 15		1
		P.W. Board	(PW-1243)	(1)
		OTHER PARTS		
	940 0456 543	3P Connector Ass'y	Deck ↔ Deck	1
	940 0456 556	10P Connector Ass'y	Deck ↔ Deck	1
	338 0137 001	Cassette Deck		1
	940 0457 500	LCD Module		1
	940 0456 569	7P Connector Ass'y	LCD ↔ Main	1
	940 0457 607	Connector Ass'y		1